

VOLUME 11, NUMBER 2

JANUARY, 1989



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STATEMENT OF POSITION: The Chinese American Food Society (CAFS) is a non-political and nonprofit organization dedicated to the scientific and professional betterment of its members. The members of CAFS wish to interact with all scientists based on common cultural and scientific interests. CAFS takes no political stand or preference. Selection of materials for all CAFS publications is based on the scientific content and general interest. Any inadvertent connotation should not be deemed as the official position of CAFS.

<u>CAFS NEWSLETTER</u> is published quarterly by CAFS for its members. Contributions of articles of news should be sent to: Dr. Yao-Wen Huang, Editor, CAFS Newsletter, Department of Food Science and Technology, University of Georgia, Athens, GA 30602.

i

SYSTEM, OUTREACH, ENTHUSIASM

Keywords of CAFS 1988-89 Part 2

December 25, 1988

Dear Members:

In my previous letter (September 1988 issue of CAFS newsletter), I reported to you my visions as what we need to do this year to move CAFS forward. The keyword was SYSTEM. I outlined seven items for building up this SYSTEM. I am pleased to report to you now that several projects are well underway and I hope to see the completion of SYSTEM in this fiscal year. Your continuous support and encouragement are appreciated.

In this letter, I shall address to you the second and third keywords -- OUTREACH and ENTHUSIASM. Actually these two words are no less important than the first one. These three keywords are related to each other like three rings interlocked together. The movement of any one will affect the other two (please see my drawing at the upper right corner of this page).

We need a good SYSTEM as a base to develop OUTREACH programs and to encourage our ENTHUSIASM. Similarly, we need ENTHUSIASM to establish a good SYSTEM and to carry out OUTREACH objectives. Undoubtedly, OUTREACH will help us in building our SYSTEM and ENTHUSIASM.

OUTREACH means the act of reaching out. We need to reach out to pursue many of our objectives. For instance, the Public Relations Committee needs to reach out to potential members, to media and press, and to other professional organizations. We need to do more publicity for our organization. Our goal is to let all Chinese American professionals know our Society even though many of them may not be trained in food science areas. They may be engineers, chemists, or medical doctors, etc., but their work may be in relation to food science and technology. We want to reach them.

Many of our other objectives also require OUTREACH to achieve them: The Fund-raising Committee needs to reach out to corporations and individuals for contributions; the Employment Committee needs to reach out to prospective employers and employees; the Membership Committee needs to reach out to former CAFS members; the Student Affairs Committees needs to reach out to all Chinese American students in food related areas; and the Conference/Workshop Overseas needs to make contacts with overseas organizations, etc.



OUTREACH is not only the responsibility of several Committees, it needs everyone's participation. You, as an individual member can help our organization greatly. For instance, if you know any Chinese Americans who is in food related field, why not ask him/her to join us? If you know of any former members' new addresses, why not inform the Membership Committee so that those former, "missing" members can be found. Additionally, please feel free to contact any Committees for any information or ideas.

ENTHUSIASM is the major driving force in many activities. Many of our members are very ENTHUSIASTIC about our Organization. Since the establishment of CAFS, I have seen the continuation of this spirit. I was especially influenced during the past several years by our ENTHUSIASTIC, dedicated and energetic CAFS "Workers" whether they were elected, appointed or volunteered. I have seen how they performed and how much I learned from their examples. Over 1.5 years ago, I accepted the responsibilities as CAFS's President-elect because I was given this precious gift --ENTHUSIASM. This year, as entrusted with the role as "Chief Worker", I hope not only to maintain but also to increase and spread this ENTHUSIASM among our members.

I am most grateful that every one of the CAFS Officers, Executive Members and Committees is willing and diligently carrying out his/her assignment. With this ENTHUSIASM, we can build a sound SYSTEM and to REACH OUT to even higher status.

Wishing you a PROSPEROUS NEW YEAR.

Truly yours,

Ang

President

The Executive Committee will hold a Semiannual Meeting on January 29, 1989 at Athens, Georgia. If you are in the area during that time, we would like you to join us. Please contact Cathy Ang for further information.

CAFS 1989 ANNUAL MEETING ANNOUNCEMENT

Coordinator: Daniel Y.C. Fung

Local Arrangement Committee: George Chu, Chair Peter Wan Grace Yao Whu Ta Lee

Annual Forum

JUNE 27, 1989 (Tuesday)

Location: To Be Announced

Time and Activities:

2:00 p.m. to 2:30 p.m.	Annual Business Meeting of CAFS Cathy Ang presiding
2:30 p.m. to 3:00 p.m.	Getting acquainted Daniel Y.C. Fung presiding
3:00 p.m. to 3:45 p.m.	International Involvements of Food Scientists from CAFS
	Y. Hang and D.Y.C. Fung will take you around the world in sharing with you their experiences in working with food scientists in such countries as Australia, New Zealand, Singapore, Finland, France, Ethiopia, Japan, etc. Guaranteed to be informative and inspirational.
3:45 p.m. to 4:15 p.m.	Student Program
	T.C. Chen will provide valuable information on job hunting, professional development skills, etc. designed for Chinese students.
4:15 p.m. to 5:00 p.m.	Scientific exchange and interactions with Chinese scientists from other regions of the world.

Evening Gala Gathering

Chinese restaurant to be announced. Price per person will be about \$25.00.

- 6:30 p.m. Mixer. Meeting old friends making new ones.
- 7:00 p.m. Dinner. Menu will be announced in the next newsletter.
- 8:00 p.m. After dinner activities include a short key note address, presentation of Professional Scientist award and Outstanding Graduate Student award, entertainment and DOOR PRICES!!

PLAN TO ATTEND BOTH EVENTS. YOU WILL BE GREATLY REWARDED.

MY INVOLVEMENT in THE HISTORY OF CAFS

B. S. Luh

Dept. of Food Science and Technology University of California, Davis, CA 95616 October 19, 1988

I have been requested by Dr. Cathy Ang, President of the Chinese American Food Society to write a history of CAFS. It will be difficult for me to turn down the request, because we all want to make CAFS a better association to serve the members interested in food science and technology. I ask your excuse in case I made improper writings of the history of CAFS, and wish to have the help of fellow members to correct any errors or incorrect statements.

In 1953, I joined the Institute of Food Technologists after I started to to work for the Department of Food Science and Technology of the University of California, Davis, California. The interest of the Department is to help the food processing industry solving their technical problems, with emphasis on peach and tomato processing. devoted more than ten years on the processing of fruits and vegetables. In order to achieve academic standing, I was also asked to do some basic research that will help us to understand the basic principles in food science and technology. In addition, I have to advise graduate students for their research for advanced degrees, either M. S. or PH. D. We have many foreign students at that time. Usually they need a lot of help in carrying out the projects. The hardest part to them is to write reports in English. Most of the foreign students were handicapped in speaking and writing English even though they were capable of reading the literature in English very well. Every year, since 1939, there was an Annual IFT meeting. I was fortunate to meet many scientists and technologists during the meetings. Gradually we got to know more Chinese food scientists and technologists working for the food industries and universities. Some of them also worked for the federal and state governments. We started to think about forming a Chinese Association.

In the summer of 1974, the IFT meeting was held in New Orleans, Louisiana. As usual, a group of Chinese had a dinner together in a local restaurant. We had a great dinner party, and discussed about making a list of Chinese food scientists attending the IFT meeting. After the meeting, Dr. Whu-Ta Lee of the Durkee Foods made a list of the participants and other names, and mailed it to all. Our common goal was to know one another better and to have technical discussion among ourselves in case difficulties arise. Indeed, we got a lot of benefit by having such a connection. We decided that we would have a dinner together on Monday evening of the next IFT Annual meeting, so that we may know one another better and to learn food science and technology through discussion. Therefore, we may say that the idea of forming an association was started in June, 1974 in New Orleans. Our group also asked Dr. Samual L. Wang, who was located in Chicago, to coordinate the 1975 Annual IFT meeting in Chicago and to take care of the directory.

Formation of the IFT-Chinese Association in 1975

In June 8-11, 1975, the IFT Annual Meeting was held in Chicago, IL. We held the first official dinner meeting on June 9, 1975, arranged by Dr. Sam L. Wang. There were over 60 Chinese food experts came to the meeting. One important decision was that we shall have a permanent organization of the group so that every year, we will have an IFT Chinese Dinner on Monday evenings of the IFT meetings.

In this dinner meeting, I was elected as the first president of the Association, Dr. Li-Chuan Wang, the vice president and Dr. T. S. Chen, the secretary. Dr. Chen was also appointed to arrange a dinner meeting in June, 1976 in Anaheim, CA. The membership fee was decided for S2.00 per person. This fee was much lower than any scientific society, but we were determined to have more fellowship and exchange of knowledge. Dr. Sam Wang collected the fees, names and addresses of the participants as well as other absent Chinese food scientists. He later compiled the directory and send copies out to every one on the list. Details of the 1975 event was later reported by Dr. Joseph J. Jen in the Food Industry.

The 1976 Meeting in Anaheim, California

The 1976 meeting was arranged by Dr. T. S. Chen. He had sent out notices to all members in advance of the the IFT Meeting. The Convention Center was very near to the Disney Land in Orange County. Most of the members brought their families to see the Disney Land arranged by the IFT. Our dinner took place on Monday evening as planned, and we had a good turn out. I thank Dr. T. S. Chen who did so much work for the Association and donated many hours of his precious time to us.

During the meeting, I presented a draft of the first version of our By-Laws. It was approved unanimously. The most important thing was to elect a new president. Dr. Stephens S. Chang was elected to assume the term of 1976-77. The Association has been going well since then.

Other events as I remembered about were: during the 1977 Meeting in Philadelphia, the By-Laws was revised and a formal name -- The Association of Chinese Food Scientists and Technologists in America (ACFSTA) was proposed by Dr. Chang. That new name had been used until 1983 when the present name -- Chinese American Food Society was proposed by Dr. Anthony H. Chen (president of 1983-84) and approved by the membership through mail ballots.

During the year of 1975-77, we had issued several newsletters regarding announcements/news/information etc. and directories to all members periodically, though not regularly. Dr. Joseph Jen (president of 1977-78) started the first formal and regular CAFS Newsletters, four issues a year. I would like to leave the details of the history from 1976 to 1988 to other past presidents to report.

I would welcome any comments or corrections made about the past history of our Society. The Society is still growing and will continue to enlarge. The members are looking forward to have better services and achievements of the whole group to benefit the mankind.

COMMENTS AND RESPONSES...

Dear Cathy:

Thank you for your letter dated Nov. 25, 1988 re: History of the CAFS. I read with very much interest the history as recalled by Dr. B. S. Luh, especially the synopsis of the embryonic phase of our association (1974-75), since I was present and involved in these two meetings personally.

Dr. Luh's recording of these two meetings is by and large accurate and I really admire his excellent memory in details. However, to help make this historical record as accurate as we can, I have edited a few lines in the 1974/75 description.

It should be pointed out that the Association has gone through 2 name changes from the early IFT-CA to ACFSTA and today's CAFS. Perhaps someone can provide the exact date of these changes. Other interesting events that warrant recording, besides what have been mentioned by Dr. Luh, include the establishment of new by-law, the incorporation as a nonprofit organization, the change in president's term, and the raise of membership dues.

Since I just received your letter today, I do not have ample time to do a better review job if your deadline is to be met. I hope you have asked others to review the record as well.

With respect to who were at the dinner meeting in New Orleans, I believe 16 was a close estimate except that my name should have been among this group of people. We did have more than 60 people attending the 1975 dinner meeting in Chicago, but it would be of little significance as to who were there. Do you agree?

Sincerely yours,

Tim

Samuel L. Wang, Ph.D. Research Scientist Horticultural Products Laboratory

(Response from Cathy Ang: Thanks for your comments. Some of yours and Joe Jen's suggestions have been incorporated into Dr. Luh's revised version. We still be interested in receiving your article about the history. I wanted to know who were there at the 1974 and 1975 dinners because I would like to contact them to request for their articles about the events).

田境-華美食品學會-創會的经过 唐武立

克陰帆箭,韩眼间華美食品学会成主+多年3,本会经各居会長以及許多staff members 努力的耕耘,逐渐成長為很正式的学術團体,亚茨埠3很多的功动.存阒本会的歷 史在会訊上出現过=、三次,可惜设有-次提起本会最厚姓的創会经过。筆者是当年的 茨起人,在記憶所及,顾意简单的述写当年創会经过,以供大家参改.

記得1974年, 窜香服務於 Durkee Foods, 第一次以名司联員的身份参加在 New Culeans 举行的IFT National Convention.在 Convention及 Exhibition 中码到了很领束 方面孔的人士们,但彼此不認識, 所以力交读. 在一大群人海中,居然遇上了窜者以 前在新竹青果新埔加工廠服務時認識的陸伯勛教授,当年他是在農復会邀請到 台湾協助成立新竹食品2辈研究所的,也匯上了素美進傍的名大張為憲教授,还有在 Michigan State 的名同學王樂同, 王永康博士等人. 異地相逢, 大家有远限高興之感, 簞者就提議事個聚餐, 大家可望坐下季好人的支護. 聚餐的消息傳出来後, 一下子就 有+五人左右要参加. 記憶所及李元山, 任筑山, 周鸿恩, 崔爱王.等人都是其中的参 加者. 因為一切是在临时的情况下茂生, 所以匆忙中找到了一家德國龍子就餐, 大家 圓坐在一張太長方型的餐桌, 边吃边读, 甚樂 融人.

筆音在聚会中提議成主一個永久性的联誼会,成為在美華人連絡的橋裡,大家一 致通过此提議, 更決定今後:每年 IFT Convention 的星期一晚上攀舟聚餐晚会,由Local 的会員夏麦主舟. 当时好像是路作 IFT 联誼会, 当晚没有討論会章事宜,也没收 会費,也没选会長。幸好 筆者在会中没忘了收集大家的名单及通訊处,加上張為農手上 資料一齋文給筆者, 款一起不下卅人。

不知不覺三四天的 Convention 在热鬧中结束了,大家也匆匆忙忙整装田家会見多日不見的家人。 国家上班後,先把会司的 Trip Report 完成,第二件事就是把本会的第一版"Directory"完成, 亚自尊地寄给名单上的各位先生,女士们。 我们這個会就 如此一年上的阁下去,一年比一年更像禄子,一年比一年她擴大更有成就,想不到如今 已有+五年的歷史了.

Editor: Title in English-- Memory of the Founding of CAFS by Dr. Whu-Ta Lee

7

October, 1175

Vol.7 No 10

食品工菜

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111

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<u>事</u> 美國食品科學學會中國聯誼會紀實

IFT Chinese Association -- Dr. Joseph J. Jen

一年一度的全美食品加工學會(IFT)的年會 於一九七五年六月八日至十一日在美國伊利諾州芝 加哥市學行。因為芝城地位適中,食品公司林立, 和食品加工在美國的日受重視,今年的註冊人做達 九千人之諦,遠超過以往的記錄。各學校研究微構 及食品公司研究人員發表的研究報告及 寡題演講 有394篇,亦為 IFT 有史以來之最多者,每天上下

午均有八到九個小組同時進行討論,使很多人想聽 的兩、三篇報告列於同一時間內發表而有向隅之憾,將來如果此領趨勢觀續發展下去,來年的年會節 目表的安排將念想困難。

在美國經濟一片不景氣整中,食品加工學會一 技獨秀。去年一年中會員大增,如今總數已達兩萬 五千人以上。學會編印的學術雜誌亦在一年中增加 四分之一的發行量,可見不論一國經済的好壞,民 生必需的食品是不可或缺的。愈是親困的時代,人 們才更說認到食品增產及加工之重要性。

今年年會,我國人参加者亦遠較往年爲衆多, 發表研究報告者亦較往年增加,是一可喜之現象。 除開研究報告及食品展覽之外,年會還有其他許多 活動;準者曾委員一個國際學者午發會,其宗旨是 聯絡國際食品加工學者的感情, IFT 新茲主席及 要員均委與其會。在會上作演講者是今年國際學術 獎的得主 Borgstrom博士,他談及世界糧食問題 時指出歷史上最强盛的王朝往往有十年左右的存糧 以備磁荒,而中國最强盛的朝代有廿年的存糧抑, 目前世界存還尚不足全世界二年之竈,是一件非常 值得暨傷之事。

自從去年張爲憲博士在美参加年會時,臺大農 化系及其他同學與張博士一起聚發時提出的 IFT 中國聯誼會,今年開始前芽了。六月八日星期日在 IFT 的熱營酒會上, 幾個去年與會的學人卽開始, 通知定於次日六時集合,同赴芝城的中國城聚發。 因為是臨時動議,許多人或未能接到通知,或已有 別的約合,而未克前往参加,如張驷祥博士會到集 合地監後又穩去。發是如此,最後参加者仍有五十 人左右。聚餐是在中國城的第一樓飯店舉行,由陳 同善君負貨點菜,曹德風、王樂同等君負費後送, 王君並擔任財務,合中除大家大快杂頤及歡該之外

作者介绍:本文作者任筑山教授现任教於 美国 Clemson University, Department of Food Science and Biochemistry: clemson, South Carolina ,並一致決議 IFT 中國際誼會成立為永久性的組 識,推選陸伯助博士為會長,王亞拉梅士為副會長 ,陳同普博士為秘書並主理明年年會聚發事宜。當 時並對參加聯誼會的會員徵收美金雨元的年會費, 以利發行通訊錄及會誌之用。發畢,首先舉行自我 介紹,各人花樣百出,尤其是在工業界服務的合員 們,大多聚激鼓吹其公司產品,不斷引起哄堂大笑 ,祗增許多自然餘風。介紹完以後,陸梅士作了一 個簡短的報告有關國內食品加工業的漲況,然後展 開了會務討論,因爲是第一次會證,各合員發言詞 躍,對國內食品加工業的關懷溢諸言表,很多人認 恨不得立刻可以貢獻一己之力爲國服務,筆者在遊 深深地爲會員們愛國的情緒所感動,可見大家雖是 身在海外,仍心向家國。

9

因為討論的題目過於廣泛,只能就記憶所及,略 提幾項簡列如下:

1.決議明年年合在加州 Anahaim 學行時,仍 於星期一晚上聚發,細則由秘書安排後,於開合前 兩週通知各合員。

2.決議發行會員通訊錄及提該發行不定期會誌, 增列新會員名單。

3.提議設立聯誼會顧問小組, 拉助國內食品界解 決疑蹤問題。

4.提謊設立聯誼會通訊,以利國內外食品界交換 消息。

5.提蠚磷誼會會員供給就業及獎助金賣料,以利 國內外人士申請。

6.提試會員多研究中國傳統会品及其改進等等。 以上3至6項、因實施上的困難,暫作列案臺考,最後筆者提議聯誼會初成立,本身趨微健全是 第一要務,希望以後在美及在國內食品界的國人都 可以參加聯誼會,經由此會而建立國內外食品工作 人員的聯繫,同時提識擦寫短文,還等本聯誼會的 成立,希望「食品工業」月到惠予利登,使國內知 道聯誼會這個組織,經大家一致同意通過。可是再 三徵求撰文者不得,筆者只有自名當劲,以多年未

動之筆,她為此文。有錯誤道為的地方,認具合語 會員見諒。 - 最後,凡有與趣意加碳誼會的國內外人士,請

直接與陸伯助會長或陳同普秘當嶹絡。地址是: Dr. B. S. Luh, Dept. Food Sci. Tech., Univ. Calif., Davis, CA 95616, U.S.A.

Dr. T. S. Chen, Food Sci. Div., Dept. Home Econ., Calif. State Univ., Northridge, CA 91324, U.S.A.

We need inputs in CAFS HISTORICAL EVENTS ******

DO YOU REMEMBER HOW CAFS WAS STARTED? WERE YOU THERE AT THE 1974 OR 1975 GET-TOGETHER DINNER DURING IFT CONVENTIONS? <u>PLEASE INFORM CATHY ANY IF YOU WERE THERE</u> and IF YOU WILL WRITE SOMETHING ABOUT THE EVENT(S).

The following articles may help you recall some of your remembrances. Please do not hesitate to write or call Cathy Ang if there are any corrections/comments. Your input will be greatly appreciated.

The "Beginning" is a part of the CAFS HISTORY which we are in the process of compiling it. WOULD EACH OF THE PAST PRESIDENTS, VICE PRESIDENTS and SECRETARIES and other INVOLVED MEMBERS, PLEASE WRITE A SHORT ARTICLE DESCRIBING THE MOST SIGNIFICANT EVENTS OF THE YEAR WHEN YOU WERE THE OFFICER. Your contributions will be part of the CAFS HISTORY. <u>PLEASE SEND IN</u> YOUR ARTICLE TO CATHY ANG AS SOON AS YOU CAN. THANKS A LOT!

NEW BOOKS FROM OUR MEMBERS...

Title: Chinese Cookbooks- An Annotated English-Language Compendium/Bibliography

Author: Dr. Jacqueline M. Newman

Publisher: Garland Publishing, Inc. 136 Madison Ave. New York, NY 10016 (212) 686-7492

Price: \$47.00

Title: Handbook on Anerobic Fementations

Editors: Drs. Larry E. Erickson and Daniel Yee-Chak Fung

Publisher: Marcel Dekker, Inc. 270 Madison Ave. New York, NY 10016 (212) 696-9000

Price: \$149.75

PROFESSIONAL SCIENTIST AWARD - nomination Chinese American Food Society

Purpose: To recognize a professional member for his/her outstanding contributions to the field of food Science and Engineering, as it relates to teaching, research, extension, administration, or leadership in industry.

<u>Please</u> type:

Name of Nominee:______ address:_____

Position: Date of Birth:

Please include the following information of a separate sheet of paper:

- A. Educational background (Institution, degrees, year, major and minor fields)
- B. Professional Societies (Offices held, dates)
- C. Professional Activities
- D. Publications
- E. Honors and Awards
- F. Nomination Statement (A one-page description that establishes the nominees's qualifications for the award. Personality characteristics and contribution to other fields are not pertient. Please confine this statement to one page.)
- G. Submit four (4) copies to: Dr. Shaw S. Wang Department of Chemical and Biochemical Engineering Rutgers University P.O. Box 909 Piscataway, NY 08855-0909
- H. Deadline: March 15, 1989.

"An amateur knows what he can do. A professional knows what he can't do." - JOHN H. LARSEN Student Scholarship Award - Nomination/Application

Purpose:

- a. To Stimulate students to engage in food research.
- b. To promote excellence in the application of scientific methods.
- c. To encourage excellence in communication research results.
- d. To develop self-confidence and professionalism in communicating scientific knowledge.

Eliqibility:

Competition will be limited to students for members of the CAFS who are undergraduate or graduate students or persons having completed the degree within the past year.

One manuscript may be entered for competition during any one year. A person may enter in competition during succeeding years by presenting new data.

Requirements:

The written manuscript will be evaluated on the following: (1) Objective, (2) Experimental design, (3) Data interpretation, (4) Clarity of wording, (5) Style and form.

The manuscript must be in he style and form suitable for publication in a journal which has an editorial staff. The contestant shall be the senior author. Titles, abstracts, and four copies of the finished manuscript shall be submitted to the chairman of the Award Committee along with the completed application form by April 1, 1989.

** We encourage professors to nominate their own students and student members to initiate his/her application.

> "Goodness is the only investment that never fails." — HENRY DAVID THOREAU

APPLICATION FOR CAFS SCHOLARSHIP AWARD

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Grade Average Thesis topic	≥ Point(curre	nt institution)	(A=4, B=3, etc.)
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Signature of a	applicant	5	

NEED OUR MEMBERS' HELP!!!

最速件!!! URGENT!!!

中國武成豆芽方法有衛生問題時:据世界日報(1/3/89)登載:NEW YORK HH 想要闽南所有站芽菜生產工廠,近日内將舉行聽記会, 等之。

机果您顾意蒂助这件事,提出一些原彩芽菜专屋介达的 Scientific Information,以使支持及改進芽菜的芝屋,

請速連絡: Dr. Ing-Chia Peng (彭英甲) Dept. of Agric. Engineering Univ. of Massouri - Columbia Columbia, MO 65211

TEL: (314) 882-1137 (Office); (314) 446-2632 (Lome)

Dear Sir:

I am a student in college and am writing a paper that promotes the many ways in which Chinese foods can be served and prepared to provide a nutritious meal.

I am looking for articles, technical bulletins, advertisement and photographs that promote the consumer to buy and prepare Chinese foods.

I would appreciate if you could provide me with any materials to help with this project.

Sincerely yours, Wayne Dublin Wayne Dublin

Wayne Dublin G15 Greenbriar Condos Route 9 Poughkeepsie, N.Y. 12601

Dec. 1988

It is time to solicit for nominations for the candidates of 1989/90 officers. Please send your nominations to me by <u>March 15, 1989.</u>

Office	Has the Nominee 1	been informed?
President-Elect:	Yes	No
Secretary:	Yes	Ио
Treasurer:	Yes	No
Executive Committee (2 years term, 2	positions)	
Position 1: Position 2:	Yes Yes	No No

Nominated by:_____

Mail in by <u>March 15, 1989</u> to: Dr. Y. C. Jao 51683 Northfield Dr. Elkhart, IN 46514 Tel: (219) 264-7604



現代科技及应用研讨会 简报 黄安-

"現代科技及应用研讨会"仍是由和这单海大学两"美中科技 书》这会"经教师的标果经行正律的人学相强之权表的 领率及推动下卡定图77年+月24日-26日三天间在公中来 御大学师们,了打的会共分的三日:(1);最境科技,的都市计面) 及了、食品与皂菜枝标,本人的投命产原如鹿药博士得以花 中有事富强, 盛水葆, 張龙信, 唐如唐朝及重做清定学長。 國内参加州的毕育高专家们有杯华健、13家饭, 家的发软, 王屠富, 過錢壽,帶,維鐘,等活住十早士 英同穆出專題汗的。 你有参加与专家人员书生10月23日下午车国山徽虎报到、次山(2412) 在国山攀行雨幕典礼由東海大学梅核長主持、金清季资政国期博士落会演读,金行平上的吴完成,随即来包中封 记中报到金彩四河海。食品的包装技行的组号在林院 長绊健中学士及王能主任废富博士主持下於下午25305位 食品科学等的健小、素气参加人家院,学生外委有政府官員, 各大学教授,以及金加工業界的研究発展人員科将=天内 对的领国创之控伍. 十月廿四日, 主蒲人员 美国食缸掌将栽展的专动势 黄安一 出度食血革発展专动势, 張私你 唐加九之之最近教势 相甘五日, 调于海湖 肉品及肉品色装 专报钦 美国新虎山华展演变过程 毯形停 我国食血科技研究成星主之掌化 王慶高 作学之行死. 康糖的甜味代用品 相乐日张光信 赵用生物技術生產完近配料 迴轮燕 金店罐注程表势 唐如康新

金融的时代的工作上这时及其问题

更低

藥推銷

注法会找26日下午六小卡左不完单随着学们开幕央的人。 闭幕典的山田物枝是雅特委由美中科技会董多是高摩西 博士及会长重修博士分别教育主命登世次是将非一速串 的闭始。希望今次大家防聚在一望至相到按科技, 天山黄及 经额的到底。

沙水市海会最大的特美星国内社会相交流

大家的座一堂多相提出问题大家家换意見,大家搜伤解决的方式而作去,我们庭次得益不少,知道国内 已对基础科学和成为面积常更强,而重加大学家信息,就没到这个时间没有我们有多少。因此对方加上;并不会的2辈同行当有很大的收费,最難得是这些传工事帮低和查加的事業人们都非常有短的方面;并不会到其保意見这种知道至相爱;所至相爱;接受到情况可说是;并不知意了和爱情。

10月27日及28日落秀2月的里月.我的考秀2月3年行行的 常的2年研究到後27日当日年南下秀2月11年全上府这(斗六府) 晚上在公寓住了一夜节三天秀2月就一食品公司下午部所用 南亲户回到这中方观三理公司.這三天的考2月;市我 仍建立住会到国内。24年以及了。這三天的考2月;市我 制建度每次的发的高劳,量物在4年一起分了。最重要的是各公司的 21下常数年龄处理可注是1322力船主要拿回之一。 老多艰三棵2.100、家餐校、软算结束3.115次许的含. 齐加的人员前,来名目;这美。本人就在叫好带们更任此举及 美中科+起会致的时、使我不但得些对机会参与在下结存机会 解解网内展出2季始,进行市场加入方经就与 学校、华斯明和人。另外对更低力大学会教授与安排住研究 计论会们会行之间了。向李乾、世生世表示到100个的感谢书。

WHAT'S UP? CAFS MEMBERS...

Congratulations to Ada and Yung-Hai Chen! They are the proud parents of a baby boy, Thomas, weighing 7 lb, 12 oz. Ada was recently elected as the president of Sunrise Toastmasters #619, and the vice president of LA Science and Engineering Society. Good Luck!

Congratulations also to Yen-Con and Heidi Hung! They had a new baby boy named Jonathan Kevin, who arrived on November 14, Yen-Con recently travelled to Taiwan and stayed for 4 weeks. During his trip, he visited several universities and food research institutes.

Wai-Kit Nip travelled to Taiwan on September, 1988 to collect information related to his research projects. Dr. Nip also visited National Taiwan University, Chung Hsing University and National Taiwan college of Marine Science and Technology.

James H. Moy attended the International Workshop on Food Irradiation 1989 at FIRDI, Taiwan, ROC from January 5 to 15, 1989.

Paul J. Ke is a Professor at the Department of Food Science (Biochemistry), Memorial University of Newfoundland, St. John's, Canada. Paul is in charge of Eastern Canada Fisheries Science and Technology Research. The Center for International Fisheries Renewal was established on November, 1988. Dr. Ke is the Chief person. He welcomes our members to participate the Atlantic Fisheries Technological Conference which will be held at St. John's on August, 1989.

Santa Lin was promoted as Director for Analytical Service, Protein Technologies International. His territory includes chemical and microbiological analysis and computer services. Santa recently travelled to mainland China for the business, he wonders if there is a FIRDI type organization in China. Any one of you know that?

Tung-Ching Lee is now a professor at the Department of Food Science, Rutgers University. He also works in Rutgers' Center for Advanced Food Technology and the Fisheries and Aquaculture Technology Extension Center. Although Dr. Lee was on board on August, his family was still in Kingston, RI. Last month, Tung-Ching with his family had a trip to Taiwan.

Emil An-I Huang and Fu-Hung Hsieh attended the Seminar on Modern Science and Technology and their Applications at Tung-Hai University, Taiwan, October 24-26. The seminar was sponsored by the Tung-Hai University and Central United States Science and Technology Association. Emil was so kind to write a article regarding this Seminar for our members. Huan-Wen Hsu is the owner of Super Fried Chicken at Houston. His business has been great. Dr. Hsu said that food service is a tough business, while the location and the advertisement are two keys for success.

Rong-Yue Chao concentrated his research in the area of separation technology. He has a project cooperated with Fu-Hong Hsieh. Dr. Chao planed to prsent papers at two international meetings, the 5th International Congress in Engineer and Food at Cologne, West Germany, on May and Conference on Separation Technology at Toronto, Canada, on October.

Sherman H. Lin recently changed his job. He is working in the flavor area with Philip Morris Tabaco Co. at Richmond, VA. now. Congratulation!

Joseph J. Jen travelled to Taiwan to meet with high rank government officers who are policy makers in agriculture and food division. Dr. Jen was invited by Executive Yuan, ROC to evaluate the food and agricultural industries in Taiwan and to give the recommandations for Nation's long term and short term directions and priorities. During his two-week trip, he visited food manufacturers and gave lectures in FIRDI and National Taiwan University. Joe also visited National Taiwan College of Marine Science and Technology and Ping-Tung Institute of Agriculture.

Around the world in 47 days! Daniel Y.C. Fung had a successful "Around the world lecture tour" from August 24 to October 9, 1988. He gave 21 lectures mainly regarding the rapid methods and automation in microbiology. The lectures and presentations reached more than 1,000 scientists, students and facilities in six countries including U.S.A., Australia, New Zealand, Singapore, Finland and France. The tour completely circled around the world (from Manhattan, KS to Manhattan) and went as south as 45 degree (New Zeland) south of the equator and as north as 60 degree (Finland) north of the equator. How marvelous Dan is! No jet lag. You may like to know this at the first hand, don't miss this summer's CAFS Annual Meeting at Chicago.

Who else was in travelling? Y.C. Jao, Shaw Wang, Grace Yao, Chi-Hung Lee, Michael Tao, and Shu-Chi Lee had their overseas trips during last October and December. And where were YOU?

YOU'RE LUCKY YOU CAN FLY...
IF I WERE YOU, I'D FLY

IF I WERE YOU, I'D FLY
If I WERE YOU, I'D FLY

CLEAR AROUND THE WORLD!
If I'L

If I WERE YOU, I'D FLY
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Fundamentals of Supercritical Fluid Extraction and Its Application in the Food Industry

by

Roy R. Chao

Dept. of Food Science & Nutrition University of Missouri-Columbia Columbia, MO 65211

Background of the Technology

Over a century ago, there was a general consensus that materials above their critical points would be gaseous in nature and perform poor solvation power. Not until in 1879 Hannay and Hogarth first demonstrated that as the ethanol was situated beyond its critical point, its solubility of potassic iodide and other inorganic salts displayed in the same manner as normal Studies of solubility of gaseous compounds in the region liquid. of supercritical state continued during the following years but on a somewhat sporadic basis, and research emphasis was centered on setting up phase diagrams for binary mixture with respect to pressure and temperature projections. Many of the available solubility data were limited only relatively moderate densities due to the lack of and/or difficulty in building high pressure vessels in early days. Meanwhile, it should be noted that the critical phenomena was realized in the mining industry, for instance, the formation of quartz deposits on turbine blades in, working with supercritical water vapor which contained dissolved mineral matter.

Intensive industrial interest in the application of SFE used in food and natural product processing was stimulated primarily by the numerous patents from Dr. K. Zosel of the Max Planck Institute between and years of 1964 to 1977. His work gave the impulse in Europe for a detailed investigation of the supercritical fluid (SCF), or in general term, the dense gas, as extracting agents. However, the first symposium entitled, "Extraction with Supercritical Gases", held at Essen, West Germany, on June 5th, 1978 was in fact the milestone. The symposium made the techniques generally known and gave rise to various research, worldwide.

Review of Formation of SCF

The SCF usually are low molecular weight gas such as ethylene, propane, carbon dioxide, ammonia, etc. Before discussing the characteristics of SCF state, we first review the relationship between pressure, molar volume, and temperature properties of a typical gas. As shown in Figure 1, the twodimensional diagrams are the projection of the three-dimensional figure onto the suitable axes. On the p-v phase diagram shows isothermal lines, while on the p-t diagram shows isobaric lines. The critical point can be determined from a p-v diagram by plotting isothermal lines for the experimental data. As higher pressure proceeds, the horizontal portion of the isothermal lines becomes shorter until finally the isotherm has only an inflection.

The critical point of a gas is then best described as a state where the density and other properties of liquid and vapor become identical. The SCF is then defined as any fluid at temperature and pressure being stated above both its critical pressure and temperature.

Supercritical Fluid Extraction

The physical-chemical properties of SCF which makes it a unique solvent is shown in Table 1. The SCF has a density comparable to normal liquid ones, while its diffusivity and viscosity are intermediate to those properties for normal liquids Therefore, a SCF possess a solvent power similar to a and gases. typical normal liquid, but with better mass transfer characteristics, i.e. higher diffusivity and lower viscosity which leads to higher extractability of soluble solutes than normal liquid solvents. The supercritical fluid extraction (SFE) works by manipulating the creating a gas to its SCF state, via the pressure and temperature, and allowing it to contact with the material of interest and extract the desirable or undesirable soluble components from the material in an extraction vessel. The soluble component-loaded supercritical CO2 mixture then leaves the extraction vessel, passes through an pressureexpansion valve to reduce the density of supercritical fluid, and enters to the separator where the CO_2 phase is separated from the loaded soluble components and leaves the separator. The released components are then deposited in the separator and ready for collection.

Application of SFE in the Food Industry

The research motivation in SFE mainly comes from the increased cost of energy, expected stringent regulation of conventional solvents, and increased demand on better biomaterial products. The conventional extraction methods, i.e. vacuum distillation, steam distillation, extraction with solvents and adsorption, used for concentrating food colors, for instance, usually carry the drawbacks such as:

- low recovery of solvent;
- (2) risk of thermal degradation of the extract;
- (3) risk of oxidation of some oxygen-labile extracts; and
- (4) limited use of the extracted residue for protein source.

However, by using a SCF with regard to temperature and pressure the above-mentioned drawbacks can be avoided.

Specifically, SFE offers the following advantages:

- (1) minimal thermal effects on the products;
- (2) high quality of recovered products;
- (3) low energy requirement for solvent recovery; and
- (4) high selectivity in the separation process.

Therefore, the SFE technique particularly using CO₂ as the solvent agent is attractive to food industry. Carbon dioxide is chosen in most SFE processes because it meets most of the criteria as an ideal solvent which include: (1) an end-product of human metabolism; (2) inert toward the extract and residue; (3) stable toward influences of the environment such as heat, light, air and water; (4) no corrosive action on the installation; (5) non-combustible and non-explosive; (6) inexpensive; (7) GRAS (generally recognized as safe)-status; (8) economic; (9) harmless to environment; and (10) sterile and bacteriostatic.

There are generally two types of application for the SFE: either removing the undesirable components from wanted materials, or extracting the desirable components from unwanted substances. The successful cases most frequently cited are the decaffeination of coffee and extraction of alpha-acid from hop, a major component of bitter flavor for beer. Other interests included the deodorization from animal/vegetable oils, delipidation from pharmaceutical and foods, flavor/aroma/color concentration, etc.

Highlights of some recent published results of SC-CO₂ extraction applied to food products are:

- * Fractionation of butter into high-melting and low-melting fractions and selectively removing cholesterol from it.
- * Oil extraction from rice bran and soybean with low content of phospholipids.
- * Extraction of omega-3 fatty acids from fish oils and algae.
- * Color extracts from paprika, annatto seed, and licorice root.
- * Delipidation of fish protein, mustard, wheat germ, and soybean.
- * Terpenes extraction from citrus oil.
- * Cholesterol removal from butter and ground meat products.
- * Decontamination and/or sterilization of natural products.

Conclusion

SFE, in association with separation technique such as adsorption, can provide the basis of industrial processes in foods, particularly where it is important to keep temperature as low as possible in order to prevent thermal damage to the process material. The application may extend far beyond the lipid extraction branch of food technology.

> "Never mistake knowledge for wisdom. One helps you make a living; the other helps you make a life." — SANDRA CAREY

Table 1 : Typical physical properties associated with different fluid states.

n p. s.p. s.d.

	Density	Diffusivity	Viscosity
State of Fluid	(g/ml)	(cm ² /s)	(g/cm-s)
Gas	(0.6-2) X10 ⁻³	0.1-0.4	(1-3) X 10 ⁻⁴
P=1atm., T=15-:	30C		
Liquid	0.6-1.6	0.2-2 X10 ⁻⁵	(0.2-3) X10 ⁻²
P=1atm., T=15-3	30C		1997 - 1997 - 1998 1997 - 1997 - 1997 1997 - 1997 - 1997
Supercritical	0.4-0.9	0.2 X10 ⁻³	(3-9) X 10 ⁻⁴
P=4P _c , T=Tc			



Figure 1. Typical phase diagram of a gas.

JOB OPPORTUNITIES...

Dear Yao-Wen:

I talked to a friend who runs an employment agency in the Bay Area and he mentioned several immediate openings in the following areas: Meat and savory, flavors (analysis and compounding), dairy, frozen foods, and ingredient sales. Persons interested in seeking employment should contact Mr. Larry Brickman, L. Brickman Associates, 1638 Latham #1, Mountain View, CA 94041. Telephone: (415) 965-7339. Alternatively, they can contact Larry's associate in Southern California: Tom Allison, Kurbatoff and Allison Associates, 2660 W. Woodland Drive, #180, Anaheim, CA 92801.

Best regards.

Sincerely. Chi-Hang Lee

- Company Name: Protein Technologies International
- Position Title: Sales Manager
- Location: Taipei, Taiwan, ROC
- Qualifications: Bachelor or Master in Food Science, Food Technology or Business Administration

Speak good English and Chinese, and willing to live in Taiwan are desired

How to apply? Please send your resume to Dr. Santa Lin Protein Technologies International Checkerboard Square St. Louis, MO 63164

Any five-year-or-more member of IFT who is unemployed or underemployed due to a merger or acquisition is eligible for: 1) one free Situation-Wanted advertisement (8 lines) in *Food Technology* and, 2) complimentary registration for the 1989 IFT Annual Meeting & Food Expo.

See: OCTOBER 1988-FOOD TECHNOLOGY 285

Successful, workshops, conferences and short-courses do not just happen; they are the result of good planning, careful execution and a great deal of hard work. The recent decline in enrollment at colleges and universities across the nation has generated special challenges to university administrators. In light of those challenges, I would like to share with other educators some strategies that have proved successful for me.

For the past eight years, I have been offering a workshop at Kansas State University on a technical topic, "Rapid Methods and Automation in Microbiology." I have found the following ingredients to be key to the development of a successful program: unique opportunity, organization and follow-up, academic credibility and target marketing.

Unique opportunity. During the past 15 years, while traveling and lecturing about "rapid methods and automation in microbiology," I had become aware of how many new and exciting instruments and diagnostic kits had been and were being developed commercially to rapidly enumerate, estimate, identify and characterize microorganisms in clinical specimens, food samples and environmental samples. In few laboratories, I observed, was it possible for scientists to test all these instruments and kits at one time.

Meanwhile, I had noticed that companies manufacturing these instruments and kits were eager to show and demonstrate their products to *serious* potential users. The question, "Why not bring the two groups together?" sowed the seed for my international workshop.

Once the program was established. appropriate programming was necessary to attract participants to Manhattan, Kan., in the middle of July. The workshop offers "hands-on" experience, under the guidance of manufacturing company repesentatives, with many of the most advanced techniques in applied microbiology.

I invite well-known scientists in the field to present academic lectures, and I am blessed by the dedication of a host of laboratory assistants. Graduates of the workshop become ambassadors for it, and some even send their own people to subsequent sessions.

Organization and follow-up. The most successful format I have found is to start the workshop at 1 p.m. on a Friday, to

110

Daniel Y.C. Fung

continue through the weekend and conclude at noon the following Friday. This allows enough time for covering the topics, while keeping participants' official time off from the job to a minimum.

Each day begins with an academic lecture, followed by a hands-on session in the laboratory with company representatives. Three or four new systems are tested daily. Time is very tightly controlled. so that a great deal can be accomplished in one week.

Social events also are a part of the program and include an opening reception. a mid-week picnic and a farewell swimming pool reception. Optional dinner groups meet during the rest of the week. Many participants feel the evening times are very valuable to exchange ideas and to get to know each other better. The workshop is intended to be a "summer camp" for microbiologists.

Besides sending many materials to participants before they arrive, I also keep track of them after they leave. I send them at least three letters during the year to inform them about forthcoming workshops and other happenings, and I publish an annual cumulative Participant Directory to keep everyone informed. At major national meetings, I also organize "rapid reunions" to continue the fellowship generated through the workshop series.

Academic credibility. Soon after coming up with the idea for the workshop, I proposed it for a graduate course at KSU. I went through all the proper channels and received official approval. Later, the workshop was certified by the American Society for Microbiology for continuing education units (CEU's.)

One of the program's major strengths has been its ability to attract those who purely wanted to learn the newest techniques in microbiology, as well as those who needed graduate credits while on the job and those who needed CEU's for professional advancement.

In order to test the workshop's feasibility, I taught it as a regular course at KSU in 1980. During that year, I developed a format and established liaison with manufacturing companies. Armed with a successful experience, I then contacted the KSU Continuing Education department and worked closely with personnel there to chart a future course of action.

y, to I concentrated on development of the Journal of Environmental Health

academic program, while the continuing education staff worked on all the necessary administrative details, including budget, printing, mailing, registration and bookkeeping. At this stage, the department agreed to assume the risk and gave the green light to proceed with the workshop.

Target marketing. Through personal contacts, national and international directories and other lists, 2,000 names were selected for a preliminary mailing. That mailing went out in January 1981. Announcements of the program also were made in many professional journals and organizations. By the middle of March, 40 people had shown an interest in attending the workshop. With that information, I convinced the manufacturing companies to participate.

Eventually, 16 participants from several states and countries attended the first workshop in 1981. By 1988, that number had increased to 52, which is the absolute maximum for a workshop of this kind: In the past eight years, participants have come from 40 states and 22 foreign countries. A few of their comments follow:

"I really learned and relearned my microbiology and was proud to be a participant in such a wonderful program."

"Your energies continue to amaze me! The workshop, once again, was a total success and I was happy to be included."

"Everything was just about perfect: the weather, the laboratory set-up, the course content, the instructors, the assistants, the peaceful campus, the hospitality, etc."

"This workshop was one of the most interesting and informative I have ever attended. Nowhere else would I have been able to get this type of exposure to such a variety of rapid identificaton and enumeration systems."

In conclusion, it is not the intent of this column to describe in detail the scientific content of this workshop, but rather to describe the process by which a workshop like this can be developed. I am sure there are many scientists on other campuses and with other organizations who can utilize their expertise in various fields to develop similar programs.

Daniel Y.C. Fung, M.S.P.H., Ph.D., is a professor of Food Science in the department of Animal Sciences and Industry at Kansas State University, Manhattan, KS 66506.

Volume 51, Number 2

I.C. Peng

- I. Please check your records and renew your CAFS memberships for the year 1988/89. The membership dues are due now. The Renewal Form is attached. Verify your dues payments by checking the Dues Received announcements published in this and last issues of the CAFS Newletter.
- II. Drs. Anthony Chen and Tung-Ching Lee, the winners of the 1988 CAFS Professional Achievement Award, donated their honoraria(\$50 each) to the CAFS. "hank you, gentlemen!

III. Financial status of CAFS as of October 31, 1988

a	. 1 yr C.D.	\$2600	(face	value	at	time	of	purchase)	
b	. Savings account	3148.51							
с	. Checking account	2533.71							
	Total	\$8282.22	_						

IV. Dues Received as of October 31, 1988

Attached

V. Membership directory changes as of October 31, 1988 Attached

CAFS MEMBERSHIP DUES RECEIVED (8/31/88 - 10/31/88)

i. Supporting(\$30/yr) - Lin, Santa H.C.

```
2. Professional ($15/yr)
```

Cha, Alice S. (88-89) Chang, Pei K. (88-89)	Hsu, Kenneth (87-88, 88-89) Huang, I-Lo(88-89)	Soo, Hong Ming (86-87, 87-88, 88-89)
Chen, Shwu-Pyng T.(88-89) Chen, T.C. (88-89)	Huang, Victor (88-89) Ma, Robert Tzu-I(88-89)	Wang, Samuel L. (88-89)
Chen, Tung-Shan (88-89) cheng, Shu-Guang (88-89)	Ni, Peter (88-89, 89-90)	Yiu, Ann(87-88, 88-89)
Student (\$5/100)		

3. Student (\$5/yr)

Kuo, Jin	-Der (88-89)	*Wang,	Lih-Ling	(88-89)	*Yang, Luoqing
*Liu, Li-	Zen (88-89)				(88-89)

(November 1 - December 15, 1988)

Professional (\$15/yr):

Chao, Roy Rong-Yue (88-89); *Hui, Yiu H.(88-89): Newman, Jacqeline(88-89): Lee, Yung-Hsiung(87-88, 88-89)

Student (\$5/yr):

Yang, Binghuei Barry(88-89); *Yau, Jia-Chyi(88-89)

* denotes new members.

CAFS DIRECTORY CHANGES (AS OF 10/31/88)

NAME	HOME ADDRESS	BUSINESS ADDRESS	EDU: & SPECIATY
Chen, Shwu-Pyng T. 習波章	3011 Badger Dr. Pleasanton, CA 94566 (415)848-3768 (mailing address)	Western Flavors&Fragrances 2001 Peralta St. Oakland, CA 94566 (415)893-9433	BS 81 Fu-Jen Cathlic U. MS 83 Ohio St. U. Ph.D. 86 Ohio St. U. Lab Manager Flavor Development, Application & Evalua- tion
i jî ledir			
Hsu, Kenneth ゴキ どぁレ	9 Staats Rd Belle Mead, NJ 08502		
Huang, Victor 黃倉紋	7309 Parkview Dr. Moundsview, MN 55112		
Kuo, Jin-Der	B-10, North Village		
*Liu, Li-Zen 彩力1-	3718 Parkway Plaza State College, PA 16801 (814)867-5219	n i sin i filia and Iomraine i en Titu	BS National Taiwan U. Student
Ma, Robert Tzu-I	3 Huron Ct. East Brunswick, NJ 0881	.6	
N1, Peter 人兒彦(皇	(414)241-8042	Old Wisconsin Sausage Co. 2107 S. 17th St. Sheboygan, WI 53081 (414)458-4304	Plant Manager All Phases of Fresh Meats & Processed Meats Technology and Plant Production Management
Soo, Hong Ming		Protein Technologies Inter 4th Floor, Yang Sheng Bldg	
燕鴻銘		687, Sec.5, Chung Shan N. Taipei, Taiwan R.O.C.	Rd.
*Wang, Lih-Ling 王大小之	15 E. Northwood Av Apt # 1 Columbus, OH 43201 (614)291-5149	Dept of Horticulture Ohio St. Univ. Columbus, OH 43210 (614)292-5030	BS 85 National Taiwan U. MS 87 Ohio St. U. Student
Wang, Samuel L. 도약 티	8 Woodcriar Circle St. Catharines, Ont Canada L253K3		
*Yang, Luoqing	612 Storer Av Fayetteville, AR 72701 (501)442-7394	Dept of Food Sc1. U. of Arkansas Fayetteville, AR 72703 (501)575-6846 6845	BS 69 Beijing Normal U. MSc 81 Hangzhou U. Student
		004)	
More!			
Tang, Pearl 湯永珠	#12, 470 S. 4th St San Jose, CA 95112		
Yeh, Sing-Wood 葉 省 吾	1078 Nez Perce Ct. Fremont, CA 94539		
		Dept. of Food Sci. (Bioch	em)
Ke, Paul J.		Memorial U. of Newfoundla St. John's NF, AIB3X9 Canada (709) 737-8698/8001	nd

CAFS Directory Changes (November 1 - December 15, 1988)

NAME	Home Address	Business Address	Educ. & Specialty
Chao, Roy Rong-Yue 趙 훅 裕	5643 South Bethel Ln. Columbia, MO 65203 (314) 449-1438	University of Missouri Rm 222 Ag Engr Eldg Columbia, MO 65211 (314) 882-4868	B.E. 73 National Taiwan College od Marine Sci. M.S. 79 Oregon St. U. Ph.D. 84 U. of Mass. Research Associate Supercritical Fluid Ex- traction, Solid-liquid Extraction, Modified Atmosphere Packaging Technique
Åui, Yiu H.		John Wiley & Son, Inc. P.O. Box 34 Cutten, CA 95534 (707) 444-3376	Ph.D. Editor
Yang, Binghuei Barry 楊 炳 輝	3204-D Calumet Dr. Raleigh, NC 27610		
Yau, Jia-Chyi	Hensel Apt. W-1-C College Station, TX 778 (409)846-5377	Texas A&M University 40Dept of Poultry Sci. (409)845-4818	Student

SPECIAL APPRECIATIONS

On behalf of CAFS, I wish to express our special appreciations to the following persons for their generous support:

LIFE (PERMANENT) MEMBERS:

Joined in 86/87:87/88:Chan, James K. C.Ang, CathyChang, TaylorChen, KitChen, Ada AitiFung, DanieChou, ChristineHsu, DavidYao, Ruey-Yi GraceJao, Yun ChYing, Levi Chang GangLee, Shu ChTao, Michae

Ang, Cathy Chen, Kit Fung, Daniel Y. C. Hsu, David Jao, Yun Chi Lee, Shu Chi Tao, Michael Wan, Peter Yang, Jih Hsin Jason 88/89:

Wei, Chung Rong

Nip, Wai Kit

HONORARY MEMBERS (88/89):

Lim, Chee Kian

SUPPORTING MEMBERS (88/89):

Lin, Santa H. C. Wei, Lun-Shin

We would like to encourage more members to join any of the above categories.

Cathy any

President (1/9/89)

FIRDI'S DIRECTOR MET WITH CAFS MEMBERS

Dr. Paul C. Ma, Director of Food Industry Research and Development Institute, Taiwan, ROC, visited the Department of Food Science and Technology, University of Georgia and USDA Lab in Athens, GA on November 4, 1988. Division chairman Dr. Joseph J. Jen arranaged a conference in the Department to let faculty members to meet Dr. Ma. Our CAFS president Cathy Ang and other members including Yen-Con Hung and Yao-wen Huang had a chance to meet with him. Dr. Ma told Cathy that he was very concerning CAFS members as well as the Newsletter. He sincerely welcomes our members to visit FIRDI and to give any suggestions.

MORE NEWS YOU LIKE TO KNOW...

Our organization is in the list of the Encyclopedia of Association. Yen-Con, our secretary, sent an update information of CAFS to the publisher of the Encyclopedia last October. The Encyclopedia is the standard reference guide to Associations, Societies, and Other nonprofit organizations. The publisher is Gale Research Inc., (Book tower, Detroit, Michigan 48226.)

CAFS has a good reputation, we need to make an effort to increase our publicity. Here is a good example! In Dr. Daniel Fung's new book "Handbook on Anaerobic Fermentation", he wrote himself as an editor "...Among the professional organizationa he belongs to are the Chinese American Food Society, Institute of Food Technologists, American Society for Microbiology..." How about that!

EDITOR'S CORNER

In this issue, we change our cover design. We asked an artist who learned the Chinese painting from "Stone man" ($\mathcal{T}_{\mathcal{L}}$), a very famous artist, to paint for the Newsletter. Original painting is in color. You may like to know who is the artist. Just guess! Well, Do you like it?

President Cathy Any is very concerning about our organization's history especially in the early time. Several articles in this issue will let our newer members to know how and where we started. Please send your opinions to us. Hope we could get a final version of history in the next issue Newsletter.

Finally, thanks Santa Lin, Peter Wan, and T.C. chen for their kind letters of compliment and suggestion and thanks for those who wrote articles and/or provide valuable information. Thanks also for my committee members especially Mr. Shen-Youn Chang (to be Dr. Chang next month) for writing to our student members and typing some articles. (Y.W.H.)

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CAFS NEWSLETTER

VOLUME 11, NUMBER 2 JANUARY, 1989

System, Outreach, Enthusiasm Keywords of CAFS 1988-891
SPECIAL SUBJECT: HISTORY OF CAFS
My Involvement in the History of CAFS4
Memory of the Founding of CAFS7
IFT Chinese Association8
GENERAL INTEREST ARTICLES
Modern Science, Technology and Their Applications Seminar15
Supercritical Fluid Extraction and Its Application
Anatomy of A Successful Workshop24
DEPARTMENTS
Semiannual Meeting
What's Up? CAFS Members
Treasurer's Report

FROM: Dr. Yao-wen Huang Newsletter Editor Department of Food Science and Technology University of Georgia Athens, Georgia 30602

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Editor's Corner.....

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