

EAOG NEWSLETTER 7

1. Newsletter Secretary's bit

It seems like only two seconds ago that it was 6 months until Maastricht, and now it's already over four weeks since the minute we departed Dutch soil. Which means it's only two years to Istanbul and four years to..... we don't know where yet but we're working on it. Any volunteers?! We had a very impressive presentation by the Turkish representatives of the arrangements for Istanbul, which gave every confidence that this will be a good meeting.

Back to Maastricht, I trust everyone enjoyed themselves scientifically and socially at what was an excellent meeting. I very much hope that all those who succumbed to the flu bug are now fit and well again. I did promise, for those of who clued into the org -geochem database, a survey of the flu bug's distribution, but I have decided against this for various reasons. Suffice to say that LOTS of people got sick from flu, a couple of people were sickened because they had things stolen, and one or two felt sick because they were not able to come to Maastricht in the first place. Thanks to all who wrote in! I got a much better response when I enquired about people's health than when I requested geochemical contributions..... hence I would like to cite one email I got from a well known geochemist because it does actually mention geochemistry: "For what its worth, here are my impressions of the meeting. Yes, I for one am back in my little cave in the basement of the Energy Center in Oklahoma. Aside from being food poisoned, sickened by a Cuban cigar, catching a terrible cold and perhaps losing a dear friend I think I had a pretty good time in Maastricht. What I found absolutely amazing was that I was in a region of the world renowned for its cuisine and I (honest to God) lost 8 pounds in the course of the week, which is twice what I lost in a comparable span of time in Scotland this past summer! Perhaps the beer/wine in this part of the world is severely depleted in the heavier isotopes of N,O,S,C,H (see article by Chris Cornford - ed.) as this "miracle" couldn't possibly be related to my long walks (approx 50 m) from my hotel room to the conference center. I did work out a wee bit in a gym with Brian Popp, so I guess I need to check with him and see if he experienced a similar decline in body weight. If so, perhaps we could rename this meeting "GEO SPA" and return to Maastricht on a regular basis. Okay, before I get really sidetracked (I never had much of an attention span), you requested that we mention some geochemistry. Over the past decade or so I have grown tired of the sometimes hostile debates concerning selective preservation vs condensation. I never viewed these models as entirely incompatible and was happy to see several contributors presenting what appeared to me to be a more holistic assessment of preservation. I look forward to seeing some of you again at "Camp Gordon". Perhaps we could import the liquid refreshments from Maastricht. Mike Engel, Norman, Oklahoma".

On behalf of the membership, I would like to thank Brian Horsfield and all the members of the local organising committee for their hard work in making the EAOG Meeting such a success.

Finally, welcome back Archie Douglas after your illness! We missed you and hope you liked the "postcard".

2. Chairman's report

Welcome to Newsletter 7. In his usual style Richard Patience has assembled a fine selection of articles and trivia to give you some insights into the life and times of EAOG, and I think you will find it both informative and (in part) amusing. It befalls me, as Chairman of the Association, to provide some introductory remarks. Not surprisingly, I have chosen to reflect on the 18th International Meeting on Organic Geochemistry in Maastricht, the last occasion we met under one roof.

At the outset I have to say that I enjoyed this meeting very much. I hope that this reflection is something most of us share. Organic geochemistry covers a very wide range of disciplines and interests. I thought the combination of single oral sessions in the morning and parallel sessions in the afternoon worked well, giving on the one hand a forum for general discussion yet with the opportunity for specialists to exchange

their ideas. The extended poster sessions really came into their own, and provided the focal point for the conference.

I said at the very outset of the conference that each EAOG International Meeting has its own atmosphere, its personalised combination of local culture and science. In retrospect I now feel certain that Maastricht 1997 followed in this fine tradition. South Limburg was an ideal locality to host the first "European Meeting" of EAOG, and the gorgeous weather helped a lot in bringing out the best of what the region has to offer. The conference facilities at the MECC were first class, and La Butte au Bois, the location of the conference dinner, provided the excellent cuisine and service for which Belgium is justly famous. The Limburg troupe, dressed in their dashing red and white, provided an insight into the Karnival atmosphere that pervades this part of Europe in February each year, and the Rain City Rollers of Aachen proved that Joe Cocker has a German twin brother.

My thanks go out to all who made the conference run smoothly. Bernd Krahl -Urban and his team (Renate, Andrea, Andrea, Kitty) and the Local Committee (Willem Fermont, Heinz Wilkes, Matthias Radke, Rainer Schaefer, Bernd Mycke) warrant my very special thanks. We can now look forward to two years from now when we will have the opportunity to gather where the continents meet, in Istanbul!

3. Secretary's Report

The EAOG Board had a meeting during Maastricht, and there follows a summary of the main points of interest.

The chairman thanked the two members leaving the Board at the end of their terms, Alain Huc and Jan de Leeuw, for their valuable contributions to the business of the Board and the support of the organisation. He congratulated Steve Rowland and Nils Telnæs on their re-election to the Board.

Results of Ballots: The secretary summarised the results of the ballot regarding the number of board members and the mode of their election. He also outlined the members' opinions on International Meetings held outside of Europe (see Newsletter VI for details). In the second ballot, Rowland and Telnæs were re-elected as board members, while Largeau was unsuccessful. For both ballots, the return was about 45%, and close to 20% of the votes were invalid (no address). The results of the ballots were not affected by these invalid votes, however.

19th EAOG International Meeting

Prof. Yalçın presented the planning and initial preparations for the 1999 International Meeting in Istanbul. The historical HCC convention center looks very attractive as do the sites for the other activities. In general, the planning is well advanced and promises an attractive meeting according to EAOG standards.

EAOG Membership Report (Rowland)

There were 393 EAOG members before the meeting, including 33 who did not pay their dues. An electronic membership file has been created in Plymouth based on the paper lists provided by Elsevier. The way of conveying membership information by the publisher's office is still unsatisfactory. The membership increased by 170 at the Maastricht meeting, because a 1-year membership is included in the conference fees for non-members. The board hopes that many of these will continue to be members after the first year.

Treasurer's Report (Nederlof)

The treasurer reported that the financial situation of EAOG is still healthy. The income, however, is erratic and the expenditures have increased recently due to an increasing number of travel funds awarded and due to an increase of costs for EAOG Board meetings. The Board decided to keep the costs for Board meetings in the years between the International Meetings as low as possible. If the present income remains unchanged, travel awards of totally not exceeding 20,000 NFL in two years could be afforded with no problem, but the Board agreed that the quality of the applications should have highest priority and

no high-quality application be turned down for financial reasons. The treasurer asked for moves to guarantee a more regular income, because surplus from International Meetings varies greatly. Regular sponsorship (e.g. of travel awards) should be explored.

Journal Report (Curiale)

The journal experiences a saw-tooth pattern of pages and impact factors due to the biannual International Meetings. The impact factor rose from 1.29 in 1994 to a record high of 1.81 in 1995, second to GCA among the relevant journals. The factor went down again to 1.29 in 1996. The number of manuscripts was 181 in 1996. It was 106 until September in 1997 (19 for special issues) which is 20% above 1996 if the flow stays at this level for the rest of the year. The rejection rate has increased substantially (almost doubled). Rui Lin in Bangkok was nominated Chinese associate editor; he will receive and edit/rewrite all manuscripts from Chinese authors (with direct contact to them where necessary) before they go out for review. A similar solution is being considered for Spanish authors. Phil Meyers has worked on an index for volumes 1-20 a modification of which may go to the Web soon. There are plans to extend this through volume 27. Elsevier discusses a Geo-ref-type index for all of their geochemical journals to be prepared until the middle of 1998, but indexing may be done for Organic Geochemistry alone (CD, Web and paper versions). Lag times of current issues shall be cured by the end of December 1997, the issues shall appear regularly at their nominal dates from next year on.

Awards report (Huc)

There were a significant number of good candidates for the Pieter Schenck award. The committee unanimously voted for Katherine Freeman. In the last two years, the committee received 16 proposals for travel awards, nine of which were awarded and six rejected for eligibility reasons (meeting attendance, no host identified); there was no rejection for scientific reasons. The regular publication of the award announcement in OG appears to be very effective, the rules shall be made clearer, however. Due to the higher flow of applications, two deadlines will be set per year to allow the committee to work more effectively. Also, the eligibility will be back to the previous rule, i.e. '2nd half of PhD work' (no post-doc work eligible). As Huc leaves the Board, Grimalt is elected chairman of the Awards Committee.

Newsletter and Web Site (Patience/Telnæs)

The recent two newsletters were well received. The next one (i.e. this one) is planned for right after the meeting. Telnæs, with the substantial help of Stuart Petch in Newcastle, has prepared the EAOG web site (address: <http://eaog.ncl.ac.uk/index.html>). Further developments will include links to other organisations, a discussion forum and the pointcast system as a search system for geochemical news. Additional suggestions for expanding the web site are requested.

Juergen Rullkoetter

4. ALAGO

The Latin American Association of Organic Geochemistry (ALAGO) is pleased to invite the scientific community to the 6th ALAGO Congress, to be held from October 18 to 21, 1998, in the tropical splendour of the Margarita Island, Venezuela.

The program covers the application of Petroleum Geochemistry to Exploration, Reservoir and Production as well as Environmental Geochemistry and Developments in Analytical Techniques. First circular will be mailed shortly.

For further information, please contact:

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Visit ALAGO's homepage at: <http://www.coc.ufrrj.br/lamce/alago>

Congress homepage at: <http://www.pdv.com/intevp/events/lacog98>

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5. THE del13C ISOTOPE DIET (or how fractionation can create a fat cat without really trying)

It was the third day of drizzle on my holiday to Westward Ho! This seemed to symbolise my drab life-style supported by my paltry income from organic geochemistry. Surely there must be a better use for those years of study, I mused, as I toyed with my soggy breakfast Cornflakes.

It was clear that to receive my financial deserts, I needed to offer geochemistry to the masses. If religion is the opium of the masses, what of organic geochemistry? It occurred to me that while a small minority consume - though this may not be true in Westward Ho! - opium, we all eat. As I added sugar to my Cornflakes to compensate for the watered down skimmed milk, I perused the packaging and their provenance-toasted corn as in Indian Corn, maize or mealies.

Vague memories of drought resistant plants utilising a C4 metabolic pathway merged with Zoe from my M.Sc. My mind was wanderingisotopically heavy carbon reference to a calorific value of 370kcal/100g on the packet kindled my thoughts. The world (or at least our western segment thereof) is obsessed with diet and here we were being fed isotopically heavy cornflakes for breakfast! Ergo the ISOTOPIC DIET. The drizzle outside slowed and the sky lightened on the eastern horizon.

Clearly, to the adipocerely (or should that be adipocereally?) challenged, corn and corn products were out. With $\delta^{13}\text{C}$ values of -23 per mil these would put on those extra grams over the years for a given intake of energy. Why have the manufacturers of 'Special K', the consumption of which is recently reported to have taken Miss World from 8 to 12 stones, not considered this?

My future was taking form: outside the drizzle had stopped. In order to procure my millions, all I had to do was write the book, shoot the video and prepare the associated cookbook. Will I have to re-draft my slides and OHPs for the chat-show circuit? So now my financial salvation was underway. Think globally - Bill Gates did not restrict HIS marketing to North Devon!

Applying my felt tip to the breakfast napkin, I quantified my concepts. If 400 million Europeans of average weight 75kg all converted to consuming 20% of their food from isotopically light carbon sources at $\delta^{13}\text{C}$ of -28 per mil instead of -23 per mil, the weight saving would be 30 million kg. Consider the Euro-flab saved: surely Brussels would provide a subsidy for isotopic lightness. Replacing the CAP (Common Agricultural Policy) with the isotopically -based SCS (Strasbourg Cellulite Subsidy) could be the next BIG idea to unify Europe and save the common currency. Is it coincidence that 'support Tony Blair, Helmut and Jacques' is an anagram of 'queues eat only lite isotopes'? As my calculations diffused into the tissue paper, the world was my oyster ($\delta^{13}\text{C} = -27.7$ per mil).

Thinking of the North American market, the most prized primary protein - corn-fed beef - may explain the obesity of the New World. Knowing of the tendency of ruminants to form isotopically light flatulence made it clear that the carbon of bovine amino acids would be substantially isotopically heavier even than the feed. Feed a cow on corn of $\delta^{13}\text{C}$ of -23 per mil, and convert it at 38% efficiency to protein with the waste products of methane at $\delta^{13}\text{C} = -80$ per mil plus carbon dioxide in isotopic equilibrium suggests the resulting beef will have an isotopic deficit of +5 per mil. At this rate, only 66 million corn-fed Americans are required to save 1 standard unit of Euro-Flab (= 30 million kg of cellulite - Ugh!). In Californian delta-notation terms, 'corn fed beef is positively negative slimmability'.

So much for what is OUT: what are we to recommend in our diet? The UK option of sheep -fed beef is clearly superior (surfing the internet, I was unable to find isotopic data on sheep's brains and spinal cords). Sipping at my orange juice, I recalled that high -latitude oranges contain isotopically lighter water and hence are preferred for our diet. I make a note to buy shares in any PEP investing in the orange industry of Iceland. Where else isotopically light foods?

During my recent visit to Maastricht, compound -specific isotopic analysis was reported to show the bacterial membrane lipids to be astoundingly isotopically light. Pondering further, I make a further note to set up a new aquaponic bio -food company to produce bacterial biomass. Termed SLIM (Stable Lipid Isotope Mush), this oligo -flavoured fractionated bacterio -untreated membrane (OFF -BUM) will sweep the grazing bars of Manhattan, keeping the slim and beautiful beautiful and slim. The company would clearly also require a research arm to investigate producing methano -trophic bacterial biomass from isotopically light methane to augment the beneficial effects. Perhaps we could tap the gaseous products from those cows we have displaced from their former position in the food chain.

By this time the sun was shining so I strode out, my financial future assured, along the promenade with an isotopically light step towards the Westward Ho! Patents office (Nr: GBH 7897043/1 -Bb).

AND NOW FOR THE SERIOUS STUFF:

IGI is really looking for a literate interpretative Petroleum (Organic) Geochemist for contract work or full time employment. Knowledge of the gastronomy of isotopes optional. If interested, please contact:

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Chris Cornford

6. Meetings

"They came a long time ago from old sediments, coals, and Martian meteorites. They are now in rivers, in plants, in atmosphere... EVERYWHERE!!! WE ARE SURROUNDED BY THEM! WHO? DINOSAURS? NO, PAHs, of course. If you are willing to survive this novel threat, let us go to Dallas where everything you wanted to know about PAH will be disclosed!"

Call for Papers
The Biogeochemistry of Aromatic Hydrocarbons
American Chemical Society Division of Geochemistry
ACS Spring Meeting
March 29 - April 2, 1998, DALLAS, TX, USA

DEADLINE 8 NOVEMBER 1997

The occurrence of potentially toxic polycyclic aromatic hydrocarbons (PAHs) in modern sediments, soils and waters has rapidly become a major environmental concern during the past three decades. However, at present, we must recognize that many questions remain unanswered about the origin and fate of PAHs. For example, their formation through anthropogenic as well as natural processes brings up the problem of 'natural backgrounds'. And since half lives of most PAHs are less than a year, why do they persist in modern environments? This symposium will be the opportunity to discuss PAHs

issues among scientists working on various modern media such as sediments, soils and waters. We strongly encourage contributions on the following subjects :

- PAHs in recent sediments, soils and waters
- Bioavailability and toxicity of PAHs in sediments and soils
- Natural and anthropogenic sources of PAHs
- Transport, biodegradation and stabilisation of PAHs
- Bound PAHs in macromolecules, humic substances...
- Novel analytical tools : isotopes (^{13}C , ^{14}C), N MR, MS...

Welcome in Dallas! Bienvenue à Dallas! Please feel free to contact us for further information :

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