

Aggarwal Group Newsletter 2007

Dear All

Welcome to the third and bumper edition of our Newsletter. For a number of reasons, this has been delayed by 2(!) years so apologies. That delay has meant there is much more news to distribute and so finally here it is in glorious technicolour.

Our big news is that Mar is currently on maternity leave after giving birth to Sofia Ruiz-Cook in July. The new family are doing well.



Above: Mar with Sofia in Porto Cristo, Mallorca.

We look forward to Mar's return but in the meantime, we are being very ably assisted by Rachel Bridges who has helped me put this newsletter together. Happy reading!

Current Group Activities

As always, we have a big multicultural group, which ensures a constant supply of fresh and innovative ideas and of course lively banter. In addition to the English contingent, we currently have students and post-docs from Belarus, Canada, Denmark, France, Ireland, Scotland, Germany, Italy, Pakistan, Spain and Sweden.



Above: Varinder and current group members

People who have started their PhD's in October 2006 were **Rosalind French** from Oxford, **James Kitulagoda** from Imperial, **Jonathan Killen** from Oxford and **Adeem Mahmood** from Pakistan. More recently, **Michael Binanzer** from Germany joined the group in March 2007. People who started their PhDs during 2005/06 were **Mariam Namutebi**, **Matthew Webster**, **Michael Shaw**, **Muhammed Yar** and **Muhammad Arshad**.

Samantha Riches, **Dean Howells** and **Mark Crimmin** started PhDs in October 2004.

Awards:

Congratulations to **Alison Thompson** who won the AstraZeneca prize for Excellence in Chemistry in 2006 and the Killam Prize in 2007.

Richard Grainger received a prestigious EPSRC Advanced Research Fellowship. He is now at Birmingham University, rubbing shoulders with another former Aggarwal group member, **Paul Davies**. With **Mike Coogan** at Cardiff and **Robin Fulton** at Sussex that brings the number of UK academics to 4, still a little way behind the French (8)!

Congratulations to **Leni Ritmaleni** who is one of two from Indonesia to receive a L'OREAL International Fellowship 2008 to study in Paris.

Within the group, **Matt Unthank** received one of the Pfizer Poster Competition prizes following in the footsteps of **Marco Ferrera**, **Chris Sheldon**, **Jeff Richardson** and **Sarah Fulford**. **Jie Bi** received first prize at the Bristol Pfizer poster competition. **Martin Lowe** received first prize at the RSC industry tour poster competition. **Matt Unthank** and **Martin Lowe** (again) received awards for the best final year talks at Bristol.

It was also a good year for publications (see end), so congratulations to the whole team for their achievements.

We welcomed a number of visitors to the group this year for periods between three and seven months. **Nadia Di Blasio** from Italy (October 2006-March 2007), **Giuseppe Lamanna** from Italy (April – October 2007) and **Raquel Navas Garcia** from Spain (July 2007) who we look forward to welcoming back next year. In the previous two academic years we have also

welcomed the following visitors; **Alejandro Baeza Garcia** from Spain (July-September 2005), **Hossein Mehrabi** from Iran (September 2005-March 2006), **Paula Hovy** from Germany (October 2005-March 2006), **Gian Cesare Tron** from Italy (June-November 2006) and **Carmen Simal Fernandez** from Spain (June-September 2006).

News from the current group

Muhammad Arshad went back to Pakistan for a few weeks and came back engaged. That's what I call a holiday with interest! We look forward to the pictures of a lavish wedding.

Current positions that PhD and Post Doc members have moved to 2005 – 2007

Christina Hebach – working as a Medical Chemist at Novartis in Basel.

Thomas Lecourt - Assistant Professor in Organic Chemistry at Université Paris 5.

Berit Olofsson – completed her Post-doctoral position at Stockholm University, Sweden and is now Assistant Professor at Stockholm University.

Christina Aragoncillo Abánades - Centro Superior de Investigaciones Científicas (CSIC), Madrid.

Knut Sommer - Bayer Material Science AG, Krefeld, Germany.

Matteo Conza - Project Leader at CILAG, Schaffhausen (Switzerland).

Steve Tisserand - Lecturer, University of Strasbourg.

Raphael Robiette - Lecturer at the Université Catholique de Louvain, Belgium.

Caroline Winn - Technologist at GSK, Cambridge (site closed), then Astra Zeneca (temporary contract, then cuts in staff!) and now Syngenta, Jealots Hill.

Oliver Molt – working at BASF in Ludwigshafen, Germany.

David Buchanan – Post doc with Dean Toste at Berkeley, California.

Amaury Patin – Post doc with Prof Marco CIUFOLINI (Lyon, France).

Xavier Ginesta – working as a research assistant in the company ENANTIA, in Barcelona.

Alejandro Fernandez Hernandez – working as a research chemist in Jansen & Cilag, Toledo, Spain.

Mercedes Rodriguez Fernandez – Academic at Universidad Autónoma de Madrid.

Maxime Vitale – Post doc with Henk Hiemstra, Amsterdam.

Damien Bonne – Lecturer at the University of Marseille, France.

Mirko Zaja - Scientist at Johnson & Johnson, Belgium

Markus Hansch - Chemist at Ciba (Basel, Switzerland).

Since the last newsletter (2004) the following group members completed their PhDs (congratulations) and moved on:

Guangyu Fang – post doc with Varinder and still here. He has promised to leave soon, but gosh, we'll miss him!

Blanca Esquivel Zamora – Academic at Universidad Autonoma de Nuevo Loen in Mexico.

Jeff Richardson – post doc with Barry Trost, now at Lilly, UK.

Andy Belfield – Chroma Therapeutics Oxford.

Dan Fuentes – worked as a chemist for Avecia, Huddersfield and is now working as a Process Manager at Novartis in Basel.

Viji Moorthie – Post doc with John Vederas, University of Alberta.

Chris Astle – worked in audit at Price Waterhouse Coopers for two years and now working in the consulting department.

Sarah Fulford - Syngenta, Jealots Hill, now EPSRC.

Mark Crimmin - completed his MSc and moved to Imperial to undertake a PhD.

Mike Badine – post doc with Prof. Seebach at the ETH, Zürich.

Eddie Myers – post doc with Ronald Raines, at the Department of Biochemistry, University of Wisconsin-Madison, USA.

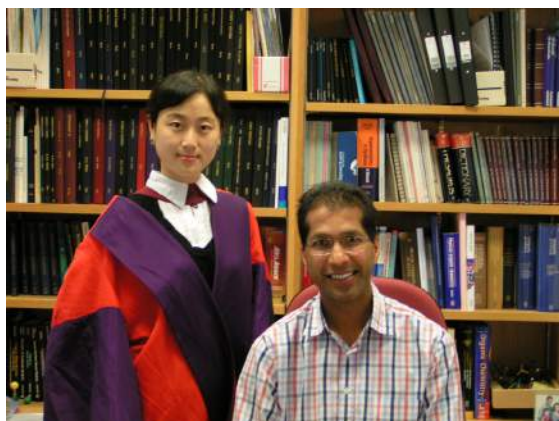
Emma Grange – Process Chemist at Rhodia-Chirex, now called Shasun.

Andy Palmer – Engineer at Airbus, Bristol.

Anne Staubitz – post doc with Ian Manners, Bristol

Graeme Balfour – scientist at Evotech, Oxford (and loving it!)

Jie Bi - Post-doc with Prof. Gerald Pattenden in Nottingham University



Above: Varinder with Jie Bi on graduation day.

Christoforos Kokotos – Post doc with George Kokotos at Athens University.

Martin Lowe – Medicinal Chemist, UCB Celltech.

Matthew Unthank – Process Chemist, GSK, Tonbridge.

Personal News from Former Members and Varinder

Alison Thompson writes: My news since 2004 (the last newsletter) is that I was promoted to Associate Professor with tenure at Dalhousie University (Halifax, Nova Scotia) in 2006. Also I won the AstraZeneca prize for Excellence in Chemistry in 2006 and the Killam Prize in 2007. The AZ prize was worth 100K (Canadian) which Varinder liked because the

UK AZ prize is a lot less money! I am on sabbatical leave this year.

Javier de Vicente Fidalgo writes: I left the Aggarwal group almost 5 years ago. After a postdoctoral stay with Prof. Rychnovsky at the University of California (Irvine), I took up a position at Roche Palo Alto in 2005 as medicinal chemist. Emma, our little girl, is already 9 months. She is adorable and almost ready walk around. We also look forward to the arrival of our second baby by the end of the year. Silvia and I bought a house in Mountain View (best known as google's home town) close to San Francisco. When Emma doesn't keep us busy, we travel and sight see around northern California. We have fantastic memories from our time in Sheffield and Bristol!



Above: Javier with his daughter Emma.

Paul Bethel writes: I met Varinder at the RSC conference in Cambridge in July. I'm still working at AstraZeneca (Alderley Park) and the only real news from last year is that I got married in May 2006 to my long suffering girlfriend, Susan Roche, who a few ex-group members will know.



Above: Paul and Susan on their wedding day.

Gary Tarver writes: I worked for Varinder 1994-1997 at Sheffield. I'm currently working for Organon labs in Scotland as a team leader in scale up chemistry. Our job is to scale chemistry from the few hundred mgs that the medicinal chemist has made to the 20g or so that is required for further study. We also make reference compounds and bulk building blocks. On a personal front I'm still living in Hamilton with Debs and the two cats. We are both season ticket holders for Hamilton Academical FC and have been camping regularly over the summer up in the highlands.



Above: Gary and Deborah.

Rachel Stenson writes: I married Pascal Bugnon on 16th Sept 2006 in Goa. In October 2006, I returned from India to take a position as Global AI planner with Syngenta in Basel Switzerland. I recently changed positions again and am now a 'Transformation Catalyst'. I will be living in the South of France but commuting regularly to Basel.



Above: Rachel and Pascal on their wedding day.

Rebecca Steele writes: I am still living and working in Milan. I am currently working for a biopharmaceutical company called NicOx. On 7th July 2007 I married Aldo Bianchi (we met at work 3 years ago).

We had a church wedding at my home in Dover, followed by a reception at Broome Park mansion house. We enjoyed a 19 day honeymoon, travelling to the west coast of the US (San Francisco, Grand Canyon, etc) then to French Polynesia (Bora Bora, Rangiroa, Tahiti).



Above: Rebecca and Aldo on their wedding day.

Chris Sheldon writes: Since the last newsletter.....I got married on 4th June 2005



Above: Chris and Ana on their wedding day.

and then Ana and myself became proud parents of Thomas Sheldon on 15th August 2006. We now desperately need a bigger house and so are in the middle of moving! I am

no longer a chemist and have moved jobs internally at AstraZeneca to become a Business Development Manager.



Above: Chris and Ana Sheldon's son, Thomas, aged 8 months.

Anne Staubitz writes: I was with Varinder until end of August last year and started my post-doc with Ian Manners in September last year. I passed my viva in April 2007.



Above: Anne Staubitz.

Berit Olofsson writes: After finishing my post doc in the VKA group in the summer of 2004, I moved back to Stockholm to become assistant supervisor in Prof. Bäckvall's group (a bit like Caroline's position in the VKA group). In the beginning of 2006, I got my current position as Assistant Professor, and now have a group of 2 PhD students and a post doc. We're doing hypervalent iodine chemistry, which is the weird kind of chemistry I got in touch with

during my post doc period, if anybody remembers it from the group meetings :-). More info can be found at my website <http://www.organ.su.se/bo/>.

Emmy (the GSD) is as happy as ever, especially since I don't have time for obedience shows any longer. She goes to a dog day-care centre just next to the university, and gets to play with other dogs all day long... Her website is sadly not updated, but you can still have a look at <http://hem.bredband.net/enemmy/english/homepage.htm> to see her adventures and travels.

Paula Hovy writes: I stayed with the group for half a year (Sept. 05 to April 06). I married this summer.



Above: Paula Hovy on her wedding day.

An insight into **Knut Sommer's** work can be found in Bayer Research (Number 18). The article discusses the investigation into finding a new process for the manufacture of aniline, an important raw material for the production of a certain class of polyurethanes. The result was the production of 'Mini 9' which works by the adiabatic process whereby no heat is discharged to the environment during the reaction so that oil cooling can be dispensed with. This process allows the production of

100kg of aniline a day. Knut has taken over the work that had previously been conducted by Dr Ido Schwarz.

Adrian Daly sent in the picture below of his daughter, Hannah who was born in November 2006.



Above: Adrian Daly's daughter, Hannah.

Helen Laughton (née Smith) writes: Amelia arrived in March 2006 and is now 18 month old and always has a beaming smile for everyone, leading to people nicknaming her 'smiler'.



Above: Helen with Amelia.

After taking 12 months off, I have returned to work at AZ where I am now a team manager in the analytical development group.

Ingo Emme writes that there have been several changes in his life since the last newsletter. In June 2006 Ina gave birth to our

second daughter, Anna-Maria, a sister to Eleni who was born in 2004. Earlier this year I left the Process Development group of the Ciba



Above: Ingo with his daughters; Eleni and Anna-Maria.

Specialty Chemicals and joined the Pharmaceutical Production of the Novartis company as Process Manager. This means that I am now a direct colleague of **Daniel Fuentes**, who is Process Manager at Novartis in Basel as well. **Markus Hantsch** started his career in the R&D department of Ciba. Specialty Chemicals in Grenzach nearby Basel, one month after I left Grenzach. So together with **Rüdiger Hainz** and **Stephen Roseblade**, Basel might be one of the centres of the Aggarwal community.

Daisuke Ohara writes: After I left the Varinder's lab in 2003, I completed my PhD at Kyoto Univ. at 2005 under the direction of Prof. Maruoka. And now I'm working in Sumitomo Chemical Co. Ltd., in Osaka and investigating the process of industrialization of API. I was married in April 2007. I'm going to join in the Carreira's Group in ETH as postdoc from September 2007 to August 2009 by the company's expense. How I wish I could meet my colleagues...especially my brother "DAN"!



Above: Daisuke Ohara was married in April 2007.

Chris Astle writes: I have now successfully passed all my accounting exams and will be fully qualified by November 07. Having worked in audit at PricewaterhouseCoopers in London for two and a half years, including working on GSK in Brentford, I was recently offered a transfer to the Consulting department at PwC. I am now working with Pharmaceutical companies in the fields of R&D and Sales and Marketing, helping them to improve the way in which R&D projects are managed with the aim of reducing the time it takes to get from discovery to market and I'm glad to say having a PhD for this work really helps. I have also worked on a publication which provides some predictions for the future of the Pharmaceutical industry (Pharma 2020 download free at http://www.pwc.com/extweb/pwcpublishings.nsf/docid/91BF330647FFA402852572F2005EC_C22).

Since leaving Bristol I have not had much opportunity to keep up playing football and pool sadly, instead I am learning to play tennis and have continued with the running, including the Kingston Breakfast Run and JP Morgan Chase Challenge, and still go snowboarding every year. Helen and I have also made it onto the property ladder in London which I hear is a major achievement and can now talk at length about paint, plumbing and tiling!

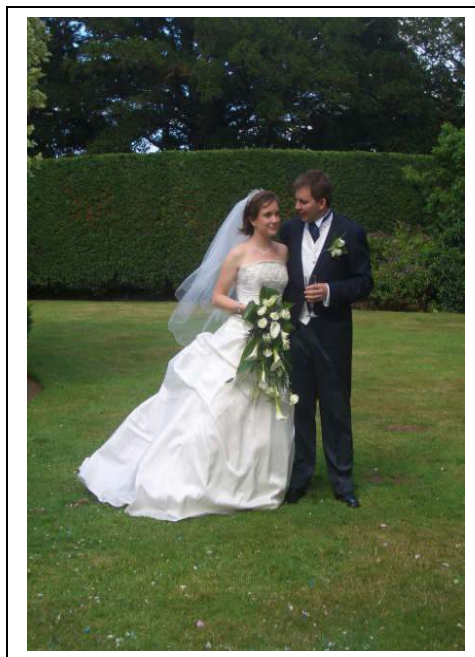
Stephen Roseblade and Emma Alonso wrote to say that they have welcomed their second daughter, Elizabeth Anne Roseblade, on 9th April 2007. Stephen has recently accepted a position as research chemist at Johnson Matthey Catalysts, Cambridge. Nerea recently celebrated her fifth birthday.



Above: Stephen Roseblade and Emma Alonso's daughters, Elizabeth and Nerea.

Bettina Bressel writes: I'm currently doing my PhD in the group of Prof. Reissig in Berlin, Germany. I hope that I'll have some more news next year!

Sarah Fulford writes: After leaving the group in 2005, I started working as a research chemist for the agrochemicals company Syngenta. However, in May this year I decided to change careers and I'm now working as a Research Portfolio Manager for the EPSRC-so if any budding academics want advice on funding opportunities let me know :o). On the 21st July I got married to James Werts (see attached photo) and we went on an amazing honeymoon to Namibia.



Above: Sarah and James on their wedding day.



Above: Sarah and James on their honeymoon in Namibia.

Emma Anderson writes: I am currently working for Link Technologies which is based in the outskirts of Glasgow. We are a manufacturer of DNA and RNA reagents most of which are sold to molecular biologists, both academic and industrial. I have been here for 6 years and am currently the New Product Development Manager.

Outside work, I live with my partner of 10 years, Ian just outside Edinburgh at the foot of the Pentland Hills. I regularly see Julia Adam (nee Worrall) and more irregularly Gair and Susannah Ford, Richard Grainger and Helen Laughton. This group from the early years meet for a holiday each year in Scotland or The Lakes, sometimes also with Gary Tarver. I have just recently spent several days with Alison Thompson who was across from Canada and in Edinburgh staying with Julia. I am still regularly in touch with Sarah Lively over in San Francisco and less regularly with Anne Zaparucha who is just outside Paris.

Markus Hansch writes: I had been a post-doc in Varinder's group until the end of February this year and took a position at Ciba Specialty Chemicals in Grenzach/Germany from April on.

Mamta Patel writes that she will be starting a new job in London next week at a company called SMi as a pharmaceutical conference producer.

Jie Bi writes: I am just back in China now. It was a very pleasant, but long, journey travelling back. I stopped in Hong Kong for several days on my way back to my hometown this time and met with some of my old friends in college there. Hong Kong is really an amazing place except for its horrible weather- Can you imagine that I totally lost my appetite there?

I have just started my job hunting both in chemistry and in non-chemistry, focusing on Beijing and Shanghai, so I will be quite busy in the near future.

Elfyn Jones writes: Of course it would be very nice if you could put our picture in the newsletter. My wife is called Rose and she's French - obviously one would expect me to meet a French girl as I live in Sweden..... - we got married last year on the 9th of June with mainly family and a few friends in a church in Uppsala (Sweden) which is where we now live.



Above: Elfyn and Rose on their wedding day.

Not much new to report. It's damn cold here - was scraping ice off the back window of the car

at the end of August and noted a temperature of minus 2 on the way to work..... Bit of a shock to the system after coming back from Sicily a few days earlier where it had been up to 45 degrees.

Chris O'Brien is Assistant Professor at the Department of Chemistry and Biochemistry, University of Texas at Arlington, USA

Imhyuck Bae has completed his Postdoc with Eric Jacobsen and is now working with Tobias Ritter at Harvard.

Sarah Lively writes: I am currently working as a Principal Scientist (Medicinal Chemistry) for Amgen Inc in San Francisco, CA (USA). We've been in California for over 2 years now and are enjoying the good weather for sure. Our son, Robert is nearly 4 and doing great (despite the strong American accent which we can't do anything about). My better half, Peter, works for Logitech as a program manager. We are all doing really well.

Kerstin Weir (née Obiery) writes: I got married on Thursday 13 April 2006 in Germany. Diarmid and I finally decided that it was time to do the important step. So my new name is Kerstin B Weir. We had a fantastic party with lots of people around including Emma and Ian and Ed and Anna Hutchinson, Julia and Bruce couldn't make it. Ed is now officially my brother-in-law! Who would have thought that back in Sheffield?! And in October last year we celebrated again. We had a ceilidh here in Edinburgh and met up with those who couldn't come to Germany.



Above: Kerstin and Diarmid on their wedding day.

We did get married despite the knowledge that we would have to live apart for quite a while until I would find a job in Scotland. But our assumption turned out to be very wrong. In the summer of 2006 Volkswagen tried to reduce

the amount of staff by offering a very nice sum as compensation to give up the work place.

And as Diarmid and I guessed that could be our chance for a life together I agreed and left Volkswagen in September last year.

I left work, gave up my flat, got my stuff into storage as long as we would need to find a house that would cope with my and Diarmid's stuff -- so moving here meant putting the old house on the market and searching for a new one. We found one pretty easily and Diarmid's old one was also sold very easily, so in December we were able to move again. First Diarmid's stuff and then my things came over from Germany. It was an awful job squeezing all our stuff in together. But we managed - more or less - the garage is still a mess. But our spare bedroom is now fully functioning and we have people coming from Germany visiting us.

David Williams writes: I am still working as a Development Chemist at Resolution Chemicals in Stevenage (4 years experience). On the 25th of August this year I married Alessandra De Gennaro in the Dolomites, Italy.



Above: David and Alessandra on their wedding day.

We had a wonderful honeymoon in Mauritius. My best man was Jeff Richardson also a past group member.



Above: David and Alessandra on their honeymoon in Mauritius.

Zeynep Gultekin writes: I have just moved from the University of Zonguldak Karaelmas. At the moment I am looking for a place.

Varinder Aggarwal:

It has been wonderful to hear all your news – your professional activities, weddings and the arrival of offspring. I have always believed that families are the most important groupings we have – whether you are living with your parents or you are the parents yourselves or something in-between, the family is a great source of strength and comfort. I hope that the larger ‘Aggarwal family’ can also provide a degree of community spirit from which we all benefit.

It has been a difficult few years for our own family as Meena has been very poorly. Since the summer of 2005 she has been virtually bed bound but unfortunately we have been unable to get a diagnosis. Her condition has unusual neurological symptoms with poor muscle function associated with it. In the absence of a diagnosis, we are trying various empirical treatments instead. In order to manage the additional responsibilities I have focused on the essentials of taking care of the family, research and teaching. The group day out, dinner at home and travel to conferences have been some of the casualties, although I did manage to go to the Cambridge Synthesis this year, where I met Marco and Paul.



Above: Paul, Varinder and Marco at the RSC Conference, Cambridge.

Throughout this period, Lukha and Romi (9 and 7) have remained happy and positive. They are thriving at school -enjoying sports and most of the curriculum (except RE!) Little Romi is now about a centimetre taller than his older brother, but fortunately neither have noticed!



Above: Lukha and Romi, the classic school photo.

Since the last newsletter, we have been fortunate to receive a number of awards (below). These are, of course, a result of **your** efforts and contributions to our research programme, so thank you.

Awards:

Zeneca Senior Academic Award 2004
RSC Reaction Mechanism Award 2004
Royal Society Wolfson Merit Award 2006-2011
RSC/GDCh-Alexander Todd-Hans Krebs Lectureship, 2007 (inaugural)
RSC Tilden Lecturer awarded 2007 (for 2008/9 academic year)
EPSRC Senior Research Fellowship (2007-2012)

I would appreciate it if you could check your entry on our website for accuracy and send an update of your current position. The website

address is:

<http://www.chm.bris.ac.uk/org/aggarwal/aggarhp.html>. Also, please check that we have everyone there (i.e. your friends/lab mates) and help us complete the full list of past group members. Any corrections/omissions, please let us know (Rachel.Bridges@bristol.ac.uk).

Finally, I hope the next edition will be produced in 2008 and will carry more positive news from ourselves.

Well, that's all for 2007. If you enjoyed reading this and wish to share some of your events from 2007 or any previous years, please write in and I will include it in next year's newsletter. As you can see, photos add considerably to the pleasure and interest in the newsletter, so please include these where possible.

We have lost touch with some former members of the group and would be grateful if you could forward this newsletter on to them and pass on their email address to us if you have it.

Hesham Abdel Rahman
Ana Maria Alvarez Garcia
Monica Catusus
Laura Ceccherini
Marilena Kalomiri
Avijit Shrinivas Kelkar
Beverley Mattison
Eddie Moya

Matthew Palmer
Alberto Procopio
Steffen Schade
Abraham Thomas
Jane Thompson
Meng Fang Wang
Robert White

List of publications 2004-07

- 156** 'Mechanism of the Morita–Baylis–Hillman Reaction: A Computational Investigation' R. Robiette, V. K. Aggarwal, J. N. Harvey, *J. Am. Chem. Soc.*, **2007**, 129, in press.
- 155** 'Asymmetric Sulfur Ylide Reactions with Boranes: Scope and Limitations, Mechanism and Understanding', G. Y. Fang, O. A. Wallner, N. Di Blasio, X. Ginesta, J. N. Harvey, V. K. Aggarwal, *J. Am. Chem. Soc.*, **2007**, 129, in press.
- 154** 'Application of Furyl-Stabilized Sulfur Ylides to a Concise Synthesis of 8a-*epi*-Swainsonine', J. Bi, V. K. Aggarwal, *Chem. Commun.*, **2007**, in press.
- 153** 'A New Manifold for the Morita Reaction: Diene Synthesis from Simple Aldehydes and Acrylates/Acrylonitrile Mediated by Phosphines' A. Palmelund, E. L. Myers, L. R. Tai, S. Tisserand, C. P. Butts, V. K. Aggarwal, *Chem. Commun.*, **2007**, in press.
- 152** 'Lithiated Carbamates: Chiral Carbenoids for Iterative Homologation of Boranes and Boronic Esters', J. L. Stymiest, G. Dutheuil, A. Mahmood, V. K. Aggarwal, *Angew. Chem. Int. Ed.*, **2007**, 46, 7491-7494.
- 151** 'Aminals as substrates for sulfur ylides: A synthesis of functionalised aziridines and N-heterocycles', C. G. Kokotos, V. K. Aggarwal, *Org. Lett.*, **2007**, 9, 2099-2102.
- 150** 'New Reaction of Cyclic Aminals with Michael Acceptors Leading to β' -amido- α,β -unsaturated carbonyl compounds through a Morita-Baylis-Hillman type reaction. Enantiocontrol and Applications in Synthesis', E. Myers, H. de Vries, V. K. Aggarwal *Angew. Chem. Int. Ed.*, **2007**, 46, 1893-1896.
- 149*** 'Asymmetric Synthesis of α -Substituted Allylic Boranes and their Application in the Synthesis of *iso*-agatharesinol', G. Y. Fang, V. K. Aggarwal, *Angew. Chem. Int. Ed.*, **2007**, 46, 359-362.
- 148** 'Studies towards a biomimetic synthesis of a-cyclopiazonic acid: Synthesis of 5-substituted isoxazole-4-carboxylic esters' V. A. Moorthie, E. M. McGarrigle, R. Stenson, V. K. Aggarwal, *Arkivoc*, **2007**, 139-151.
- 147*** 'BF₃·OEt₂ and TMSOTf: A Synergistic Combination of Lewis Acids', E. Myers, C. P. Butts, V. K. Aggarwal, *Chem. Commun.*, **2006**, 4434-4436.
- 146** 'The Use of Vinyl Sulfonium Salts in the Stereocontrolled Asymmetric Synthesis of Epoxide- and Aziridine-Fused Heterocycles: Application to the Synthesis of (-) Balanol' M. G. Unthank, N. Hussain, V. K. Aggarwal, *Angew. Chem. Int. Ed.* **2006**, 45, 7066-7069.
- 145** 'A Practical Synthesis of a [2,2,1] Bicyclic Chiral Sulfide for Asymmetric Transformations' V. K. Aggarwal, G. Y. Fang, C. G. Kokotos, J. Richardson, M. G. Unthank, *Tetrahedron*, **2006**, 62, 11297-11303.
- 144** 'Novel, Readily-Synthesised, Chiral Sulfides as Reagents for Asymmetric Epoxidation' D. M. Badine, C. Hebach, V. K. Aggarwal *Chem. Asian J.* **2006**, 1, 438-444.
- 143** 'Hemi-aminals as substrates for sulfur ylides: Direct asymmetric syntheses of functionalised pyrrolidines and piperidines' C. Kokotos, V. K. Aggarwal, *Chem. Commun.*, **2006**, 2156-2158.
- 142** 'Ligand Induced Control of C-H versus C-C insertion reactions of Rh Carbenes' V. K. Aggarwal, T. Lecourt, C. G. Sheldon, M. Vitale, *J. Am. Chem. Soc.*, **2006**, 128, 2524-2525.

- 141 'Reactivity and Selectivity in the Wittig Reaction: A Computational Study' R. Robiette, J. Richardson, V. K Aggarwal, J. N. Harvey, *J. Am. Chem. Soc.*, **2006**, *128*, 2394-2409.
- 140* 'Highly Enantioselective Synthesis of Glycidic Amides Using Camphor-Derived Sulfonium Salts. Mechanism and Applications in Synthesis.' V. K. Aggarwal, J. P. H. Charmant, D. Fuentes, J. N. Harvey, G. Hynd, D. Ohara, W. Picoul, R. Robiette, C. Smith, J.-L. Vasse, C. L. Winn., *J. Am. Chem. Soc.*, **2006**, *128*, 2105-2114
- 139 'Is phenyl a good migrating group in the rearrangement of organoborates generated from sulfur ylides?' R. Robiette, G. Y. Fang, J. N. Harvey, V. K. Aggarwal, *Chem. Commun*, **2006**, 741-743.
- 138 'Delineation of the factors governing reactivity and selectivity in epoxide formation from ammonium ylides and aldehydes' R. Robiette, M. Conza, and V. K. Aggarwal, *Org. Biomol. Chem.*, **2006**, *4*, 621-623.
- 137 '**Optimization of the Mizoroki-Heck reaction using Design of Experiment (DoE)**' V. K. Aggarwal, A. C. Staubitz M. Owen, *Org. Proc. Res. Dev.*, 2006, *10*, 64-69.
- 136 'Asymmetric sulfonium ylide mediated cyclopropanation: Stereocontrol led synthesis of (+)-LY354740', V. K. Aggarwal, E. Grange, *Chem. Eur. Jn*. **2006**, *12*, 568-575.
- 135 'Reagent Controlled Addition of Chiral Sulfur Ylides to Chiral Aldehydes', V. K. Aggarwal, J. Bi, *Beilstein Journal of Organic Chemistry*, **2005**, *1*, article 4.
<http://bjoc.beilstein-journals.org/content/1/1/4>
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