European Association of Geochemistry

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2016 EAG AWARDS: CALL FOR NOMINATIONS

To ensure the recognition of deserving scientists from all generations, your nomination can make the difference. Below is a short description of the EAG awards. The nomination process is simple.

	The **Urey Award** recognizes outstanding contributions advancing geochemistry over a career.
	The **Houtermans Award** is given to a scientist no more than 35 years old or within 6 years of their PhD for a single exceptional contribution to geochemistry, published either as a single paper or as a series of papers on a single topic.
	The **Science Innovation Award** subject area differs every year according to a five-year cycle; in 2016, the award will be named in honor of Werner Stumm for his work on low-temperature and surface geochemistry. This award is conferred to mid-career scientists for important and innovative breakthroughs in geochemistry.
	The **GS/EAG Geochemical Fellows Award** is bestowed upon outstanding scientists who have made major contributions to the field of geochemistry.

Please submit your nominations **before 31 October 2015 for the GS/EAG Geochemical Fellows and before 15 November 2015 for all other awards**. All details are available at www.eag.eu.com/awards/nomination/.

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Yolanda Ameijeiras Mariño
(Université Catholique de Louvain)

"Tracing the impact of land use change on soil chemical weathering processes"

Yolanda received her bachelor's and master's degrees in chemical engineering at the Universidade de Santiago de Compostela (Spain) in 2011, specializing in environmental engineering. She is now pursuing a PhD at the Earth and Life Institute, Université Catholique de Louvain (Belgium), where she is researching the impact of changing land usage on sub-tropical southern Brazilian soil weathering processes and the effect this has had on chemical solute fluxes to rivers. To achieve this, Yolanda uses weathering indices and geochemical tracers, such as stable silicon isotopes and Ge/Si ratios, to identify weathering processes impacted by land conversion from forest to cropland, and to quantify the effect on solutes exported from soils. The research will improve our capacity to address the major environmental and socio-economic challenges posed by changing mineral weathering conditions in soils on decade-to-century timescales.

WOUTER PETERS RECEIVES THE 2015 EMINENT SPEAKERS AWARD AT EGU

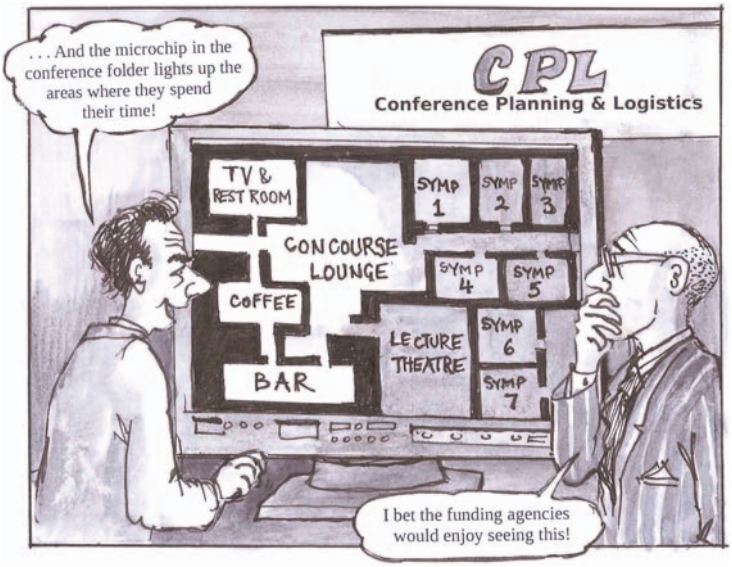
Wouter Peters (left) receives the EAG Eminent Speakers Award from Bernard Marty, EAG Vice President

Wouter Peters (University of Wageningen and University of Groningen, The Netherlands) was recognized at the recent European Geoscience Union General Assembly for his contributions to geochemistry. Peters' work centres on deriving greenhouse gas budgets from observations of CO_2 and its isotopes, which he achieves by using data assimilation techniques on physical and biogeochemical models that are combined with real measurements. This has resulted in the widely used "CarbonTracker" products. In a new European Research Council–funded program, starting in 2015, Prof. Peters and his collaborators will collect and analyze air samples from the Amazon rain forest for their $\delta^{13}C$ and $\Delta^{17}O$ in CO_2 signatures to better understand the tropical carbon cycle.

2015 DISTINGUISHED LECTURE PROGRAM GOES TO 4 NEW INSTITUTIONS

Prof. Miryam Bar-Matthews (Geological Survey of Israel) is EAG's Distinguished Lecturer this year. She will deliver lectures this October in Ukraine, Hungary, Slovenia and Croatia on the topic of speleothems.

These are public lectures, so staff, students and visitors are welcome to attend. For more information, visit eag.eu.com/education/dlp.



THE LIVES OF GREAT GEOCHEMISTS*: AKIMASA MASUDA

Akimasa Masuda is without doubt one of the "Grandmasters" of modern geochemistry. Born in 1931, and growing up through the difficulties of WWII, he graduated from the University of Tokyo with a BSc in chemistry (1953) before moving into the field of Earth Sciences and finishing his MSc (1955) and PhD (1962) at Nagoya University. He held positions at universities in Tokyo and Kobe, at the Goddard Space Flight Center in the US, and at the Korean Institute of Geoscience and Mineral Resources.

Prof. Akimasa Masuda in 1973 (4th from the left)

During his career, Masuda published more than 200 papers, 25 of which were in the journal *Nature*. His first two publications were in fields he later pioneered and continuously advanced throughout his long, successful and very productive career: the first one was on rare earth element (REE) geochemistry (Masuda, 1957, Simple regularity in the variation of relative abundances of rare earth elements. *Journal of Earth Sciences, Nagoya University*, 5, 125–134); the second one was on isotope geochemistry (Masuda, 1958, Isotopic composition of primeval lead of the earth. *Geochimica et Cosmochimica Acta* 13, 143–152)

Prof. Akimasa Masuda a few days before his 79th birthday in October 2010

Undergraduate students are occasionally asked to plot REE concentrations against REE atomic numbers: this usually results in zig-zag patterns that are very inconvenient to discuss or interpret. Unbeknownst to many younger geochemists, it was Akimasa Masuda who was one of the inventors of the method we use today to illustrate REE data: normalizing REE concentrations for rocks, minerals or waters against REE concentrations in chondrites or shale (the latter as an equivalent of average post-Archean upper continental crust). This plotting technique eliminates the effect of Oddo–Harkin's Rule (that elements with an even atomic number are more common than elements with an odd atomic number) and results in a smooth distribution pattern in which any anomalous behaviour by an individual REE is easily discernable. For many years, these normalized REE distribution patterns used to be referred to as Masuda–Coryell diagrams (Larry Coryell had almost contemporaneously developed a similar concept). Although only rarely called this anymore, the approach is still the standard way of presenting REE data (with the slight difference that we no longer arrange the REEs on the *x*-axis according to their ionic radii). Another one of Masuda's REE geochemistry discoveries was much more controversial: he claimed that the lanthanide tetrad effect resulted in the subdivision of a REE pattern into four segments and that may be observed in natural materials. This observation was initially rejected by most geochemists, and it took many years until it was widely acknowledged that he had been right.

Not surprising, Masuda's last publication combined combined his two favourite topics of REE geochemistry and isotopes in his contribution to Lee et al. (2010, La–Ce and Sm–Nd isotopic systematics of early Proterozoic leucogranite with tetrad REE pattern. *Chemical Geology*, 276, 360–373). And I myself had the pleasure of a memorably stimulating conversation with him during a meeting in Tokyo in November, 1995.

In March of 2011, half a year before his 80th birthday, Akimasa Masuda, the Grandmaster of REE geochemistry, passed away.

Michael Bau (Jacobs University)

(Photos kindly provided by Profs. Tanaka and Shimizu, with the help of Y. Takahashi)

* Previous published articles on the lives of great geochemists include Alfred Ringwood (April 2011), Samuel Epstein (June 2014), Werner Stumm (June 2015).