The Clay Minerals Society

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THE PRESIDENT'S CORNER

Andrey G. Kalinichev

This is my first public appearance as President of the Clay Minerals Society (CMS), and I would like to thank our Past CMS President, Lynda B. Williams, who has been a strong and inspiring leader for the last year. I'll do my best to serve the society well in all its evolving needs, interests, and opportunities concerning all clay-related things. I also have a confession to make: I'm not a mineralogist. I only started to get involved with clay-related science very late in my research career. The first CMS meeting I attended was in 1999 at Purdue University (Indiana, USA) – an anniversary of sorts. However, with my background in engineering and physics, I've been working on geoscience problems since my MS thesis 40 years ago – another anniversary. Surely, I'm not the first CMS President with a PhD in physics. I believe George W. Brindley had this honor 50 years ago (1969–1970). But to make things worse, I do not even get my hands dirty while studying clays in the lab or in the field: I do everything on a computer in the comfort of my office.

And here comes another important anniversary: the first two papers on atomistic computer simulations of clays were published exactly 30 years ago (Skipper et al. 1989; Delville and Laszlo 1989). They originated from the UK and France, and it seems quite fitting that a computational modeler like myself is becoming a new President of the CMS during the EuroClay 2019 Conference in Paris (France). With the rapid advancement of ever more powerful computer hardware and software, the field of computational molecular modeling of clays has quickly occupied an important place among other more traditional methods of clay study, such as X-ray diffraction, thermal analysis, all kinds of spectroscopy and microscopy (Kubicki and Bleam 2003).

My recent predecessors as CMS Presidents, Jan Środoń (2016) and Douglas McCarty (2017), have already discussed on these pages a clear systematic trend: the number of papers published in clay science journals and related to "geoscience" aspects of clay research has been gradually decreasing over the last 50 years, while the number of papers related to "materials" science aspects, published in the same journals, has been gradually increasing. We now see a similarly strong trend with the research papers related to molecular modeling of clays. Among the top 20 most cited papers in *Clays and Clay Minerals* over the last 20 years, there is only one dealing with atomistic modeling of clays, and it is #17. For the more recent period of 2010–2019, there are already two such papers among the top 20 most cited: #5 and #17. However, over the last five years (2014–2019), there are now eight such papers among the top 20 most cited to date. In 2016 alone, 25% of all papers published in *Clays and Clay Minerals* were related to molecular computer simulations of clays, and they are responsible for 58% of the citations to our journal. A special issue published that year (Kalinichev et al. 2016) has definitely contributed to these results, but even without it, the trend seems obvious: atomistic computer simulations of clays has already become a mature and expanding field of research that is attracting not only materials scientists but a growing number of geoscientists as well.

Make no mistake, I strongly believe that *Clays and Clay Minerals* must uphold its reputation of the highest quality source of data on the structure, composition, and properties of clay minerals, and it must continue to attract papers relating to mineralogical and geological aspects of clay science. But I consider it inevitable and highly beneficial both to our society and to our journal that the area of clay science gradually expands its horizons to include all possible science and technology applications of clays and related materials [e.g., layered double hydroxides (LDHs), zeolites, cement phases], and to cover the ever-growing range of sophisticated experimental and computational techniques in clay research coming from physical chemistry, materials chemistry, nanotechnology, in addition to the traditionally strong geological, mineralogical, and crystallographic expertise. I'm sure that the new publishing partnership of the CMS with Springer will also stimulate this evolution.

Andrey G. Kalinichev, Institut Mines-Télécom Atlantique
Nantes, France (kalinich@subatech.in2p3.fr),
President, The Clay Minerals Society 2019–2020

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STUDENT RESEARCH SPOTLIGHT

Sarick Matzen

Congratulations to Sarick Matzen (University of California, Berkeley, USA) for winning a 2018 CMS Student Research Grant and the Reynolds Award as highest ranking research grant recipient! This is his second CMS Student Research Grant award. The grant continues to support Sarick's work on the effects of soil characteristics—including clay, iron oxide, and organic matter content—on uptake of arsenic by the arsenic-hyperaccumulating fern *Pteris vittata*.