After the gold rush?

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I always look forward to the quarterly publication of *Platinum Metals Review*; for anyone with even a passing interest in platinum group metals (PGMs), it is a leading source of insight with excellent contributions from academia and industry alike.

January's issue carried a fascinating "final analysis" article from the University of Cardiff's Professor Stan Golunski. It is entitled "Catalysis after the gold rush" and details a new EU grant awarded to Cardiff University which "aims to explore the implications of discoveries made over the last 25 years of intensive research into catalysis by gold and so accelerate the discovery and development of other catalytic materials such as those based on PGMs which may hold the key to solving many of the pressing challenges facing us now and in the future" [1].

The article made me think about gold catalysis in a slightly different way, I must admit. The enormous wave of interest in the metal's use as a catalyst, driven primarily from the work of Haruta and Hutchings in the 1980s, really has laid down an incredibly strong foundation of understanding to build upon. The Cardiff team are correct to seek to exploit this and believe that the learning from 25 years of intensive research into one metal will help drive progress elsewhere, whether that be with precious metals, cheaper base metals or combinations thereof.

However, I truly believe we are not quite at the end of the gold rush just yet. Professor Golunski makes fair points regarding economics and commercialisation of gold-based catalyst systems. It is somewhat ironic that just as certain new solutions were poised to break into the market, the gold price reached record levels making those technologies

uncompetitive financially, a situation barely even considered feasible a few short years ago. The gold–palladium catalyst utilised in the vinyl acetate monomer process is certainly the best known example of a commercialised process, but there are a number of others currently (or previously) active in plants around the world. Granted, these are smaller in scale but are all adding to the understanding of gold-based catalysis in an industrial setting. Other processes are currently in the pipeline, but of course, only time (and the financial markets!) will tell if they reach full commercialisation.

So, I for one do not believe the best years have yet passed for gold in catalysis. The metal continues to surprise scientifically, and new opportunities are bound to arise. In the meantime, I hope you will all continue to communicate advances in the field through *Gold Bulletin*. I have been particularly busy over the last few months dealing with many excellent papers. Of course, my ongoing thanks to those of you that submit your work to us and our diligent referees. This issue contains the usual spread of interesting subjects, ranging from gold metallurgy to surface plasmon resonance and everything in between. Enjoy.

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