

Most Accessed Papers: An Interesting Mix

When we talk about impact factors, citations are the crucial data point. But to have citations next year, there must be usage today, and it is useful to take a look at the article access data for 2016 so far to spot possible trends in the field and clues to the future impact of papers published in *The Journal of Physical Chemistry Letters*. Here I highlight the top 10 most accessed papers published in the first nine issues of this year, volume 7.

The most accessed paper is one of the most recently published. In the Perspective “Surface- and Tip-Enhanced Raman Spectroscopy in Catalysis”, Hartman et al. describe methods to overcome existing challenges in the use of surface-enhanced Raman spectroscopy and tip-enhanced Raman spectroscopy for studying catalysis.¹ They indicate the potential of such methods to yield information about reaction mechanisms, which in turn would help design improved catalysts.

In their Letter “Heterovalent Dopant Incorporation for Bandgap and Type Engineering of Perovskite Crystals”, Abdelhady et al. show their success in doping hybrid perovskite crystals through a new method that they have termed dopant incorporation in the retrograde regime, or DIRR.² Our third and fourth most accessed articles tackle the challenges of tandem solar cells. In “Cesium Lead Halide Perovskites with Improved Stability for Tandem Solar Cells”, Beal et al. show that replacing the volatile methylammonium cation with cesium can help solve the band gap problem when converting silicon solar cells into tandem solar cells, thereby increasing the efficiency of solar panels.³ In “Efficient Monolithic Perovskite/Silicon Tandem Solar Cell with Cell Area >1 cm²”, Werner et al. use a low-temperature process for semitransparent perovskite solar cells to create monolithic perovskite/silicon heterojunction tandem solar cells.⁴ Hybrid organic–inorganic perovskites continue to be a focus in the fifth and sixth most accessed articles. Noting that “high-performance perovskite solar cells based on organometal halide perovskite have emerged in the past five years as excellent devices for harvesting solar energy”, Chen et al. review the progress and discuss the challenges that remain to be resolved in their Perspective “Origin of J–V Hysteresis in Perovskite Solar Cells”.⁵ By studying the emission behavior of CsPbBr₃ and CsPbBr₂I, Seth et al. find fluorescence blinking in the microsecond time scale that provides insight into their radiative and nonradiative deactivation pathways, as described in their Letter “Fluorescence Blinking and Photoactivation of All-Inorganic Perovskite Nanocrystals CsPbBr₃ and CsPbBr₂I”.⁶ Our eighth most accessed paper, like our third, explores the usefulness of cesium in place of methylammonium for increased stability and efficiency of solar cells. In “Cesium Enhances Long-Term Stability of Lead Bromide Perovskite-Based Solar Cells”, Kulbak et al. show that stability is increased without a decrease in photovoltaic performance when CsPbBr₃ is used in place of MAPbBr₃.⁷

In “Control of Nanomaterial Self-Assembly in Ultrasonically Levitated Droplets”, Seddon et al. show that droplets of soft

nanomaterials can be levitated acoustically, thus allowing analysis without contact in a controlled gas-phase environment, which can be useful for experimental approaches in many fields of study.⁸ In the Perspective “Optoelectronic Properties of CuInS₂ Nanocrystals and Their Origin”, Leach and Macdonald review CuInS₂ nanocrystals, discussing their origin, their optoelectronic properties, and the possibilities for their future application.⁹ Finally, Cushing and Wu, in the Perspective “Progress and Perspectives of Plasmon-Enhanced Solar Energy Conversion”, provide an overview of the current state of plasmonics, describing its applications and advantages in energy conversion and touching on the further work to be done.¹⁰

We published an Editorial and a Viewpoint that were highly accessed as well. In “Reaching Out with Physical Chemistry”, Kamat et al. ring in the new year with an Editorial providing an overall journal update,¹¹ and in a Viewpoint titled “How Open Is Commercial Scientific Software?”, Jacob attempts to answer that very question.¹² Thanks to the authors, reviewers, and readers of our journal for a successful start of the year.

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Notes

Views expressed in this editorial are those of the author and not necessarily the views of the ACS.

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Published: June 2, 2016

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