Editorial: the March 2022 cover paper

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The cover for the March 2022 issues of the Journal of Materials Science comes from the paper by Waag et al. [1] on the synthesis of alloy nanoparticles by laser ablation using compacted micropowder mixtures, which appeared in a January 2022 issue. The paper was handled by our Editor Catalin Croitoru; Catalin is a regular contributor to the BraMat meetings that are hosted by the Transilvania University of Brasov in a particularly beautiful part of Romania. The paper by Waag et al. was included in a Topical Collection with other papers on 'Metals & Corrosion'. Most of the authors are associated with CENIDE (www.uni-due.de/cenide).

The paper discusses the use of laser ablation to produce alloy nanoparticles. The particular system chosen features a Co–Fe alloy and the paper proposes that using well-mixed ablation targets and longer laser pulse durations benefit the laser-based synthesis

of homogeneous alloy nanoparticles. Pulsed laser ablation is widely available, so we expect this work to have interesting applications to other catalysis materials systems. The research uses a combination of scanning electron microscopy (SEM), scanning transmission electron microscopy (STEM), TEM and X-ray energy-dispersive spectroscopy (XEDS). Alloy nanoparticles have many applications including catalysis, so the electrochemical characterization is also important. The paper had been accessed 171 times 19 days after it premiered in Online First.

As is the case for all papers published in JMS (OA or not), it has color throughout—in both the hard copy and the pdf. This paper was published open access, but it does also have a SharedIt link like all articles in JMS (<https://rdcu.be/cFybK>); all papers published in JMS are free to read using the SharedIt link from the moment they appear online with their permanent DOI. The paper is 16 published pages long, which is a page or two longer than the average

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for JMS; we do prefer complete archival papers. Supplementary data for the paper are also freely available on the publisher's site.

Reference

- [1] Waag F, Fares WIMA, Li Y, Andronesu C, Gökce B, Barcikowski S (2022) Identification of the main mixing

process in the synthesis of alloy nanoparticles by laser ablation of compacted micropowder mixtures. *J Mater Sci* 57:3041–3056. <https://doi.org/10.1007/s10853-021-06731-2>

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