



Preface

Preface magnetic carriers conference 2018



This special issue of the Journal of Magnetism and Magnetic Materials contains peer-reviewed papers from some of the 328 participants at the **12th International Conference on the Scientific and Clinical Applications of Magnetic Carriers** that was held May 22–26 of 2018 on the beautiful modern campus of the University of Copenhagen (UCPH) in Denmark.

While it has already been 22 years since the first conference in this series, many of the original themes are still relevant and were discussed at our conference with intense energy, passion and vigor. Who would have thought that the object of our conference, tiny magnetic particles, could trigger such long-lasting passion? To us scientists in this field, it is not surprising, as every time we meet, there are new things to be discovered about magnetic particles. This year, for example, magnetic hyperthermia and magnetic particle imaging were merged for the first time, as eloquently described by the invited speaker Patrick Goodwill. And the developments are not stopping, with new applications constantly being imagined and turned into reality by many of our participants.

This special issue reflects a broad range of topics surrounding the scientific and clinical applications of magnetic carriers. It discusses inventions in the field of nanoparticle synthesis, which translate into improvements in magnetic hyperthermia, magnetic targeting, magnetic drug delivery, and magnetic particle imaging. These improved particles are used in biological and preclinical applications and cover diagnostic and therapeutic uses and developments. The editors hope that sitting down with this special issue will inspire readers and lead to many novel and exciting applications in our field.

As the organizers of this conference, and co-editors of this special issue, we are proud that our common interest in the basic and applied science of magnetic particles has brought together so many scientists from different fields. With this special issue, we hope to pass on some of the excitement from our meeting to the readers of the Journal of Magnetism and Magnetic Materials. We hope to welcome you to our next meeting in 2020, this time in London, England. Check out the details at <http://magneticmicrosphere.com>.



Participants of the 12th International Conference on the Scientific and Clinical Applications of Magnetic Carriers at our outing to the Carlsberg brewery in Copenhagen, Denmark.

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