

ECAA 2011

The first European Conference on Aluminium Alloys (ECAA) that took place from 5th to 7th October 2011 in Bremen (Germany) presented countless highlights of European aluminium research. Of the 17 different topics of the conference, one was dedicated to age hardening of aluminium alloys and comprised 22 oral and poster contributions. 6 authors decided to write up their results in the papers presented in this issue of the International Journal of Materials Research.

Age hardening is nothing new and now industrial practice all around the world but many phenomena governing age hardening are still not properly understood. Research on age hardening is old fashioned and modern at the same time: old fashioned because the problems treated sound very similar to the ones researchers were concerned with many decades ago, modern because new experimental and theoretical methods are being applied to finally find solutions. The driving force for most research is industry, which

wants their problems with achieving optimal hardening in the framework of given existing processing chains solved. The majority of the papers concern Al–Mg–Si-based (6000 series) alloys, mostly because these are the most widely applied ones. Two papers are theoretical, four experimental. The problems treated revolve around clustering and zone formation kinetics, structural identification of precipitated phases and the relationship between precipitate structure and mechanical properties.

Recent aluminium conferences, e.g. the international series ICAA, have shown a continued worldwide increase in activity in these fields and it can be anticipated that this will continue to be the case in the future. Aluminium alloy research is turning into a more and more exiting research area.

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August 2012