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## Random sequential adsorption of cuboids

*Thursday, 6 September 2018 15:00 (3 hours)*

The subject of this study was random sequential adsorption of cuboids of axes length ratio of  $a : 1 : b$  for  $a \in [0.3, 1.0]$  and  $b \in [1.0, 2.0]$  and its aim was to find a shape that provides the highest packing fraction. Obtained results show that the densest packing fraction is  $0.402 \pm 0.010$ , and is reached for axes ratios near cuboids of  $0.75 : 1 : 1.30$ . Kinetics of packing growth were also studied and it was established that its power-law character is no longer governed by the number of cuboid degrees of freedom. The microstructural properties of obtained packings were studied in terms of density correlation function and propagation of orientational ordering.

**Primary authors:** Mr CIESLA, Michal (M. Smoluchowski Institute of Physics, Jagiellonian University, Kraków, Poland); Mr KUBALA, Piotr (M. Smoluchowski Institute of Physics, Jagiellonian University, Kraków, Poland))

**Presenters:** Mr CIESLA, Michal (M. Smoluchowski Institute of Physics, Jagiellonian University, Kraków, Poland); Mr KUBALA, Piotr (M. Smoluchowski Institute of Physics, Jagiellonian University, Kraków, Poland))

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