

Abstract Submitted
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Granular Segregation with Anisotropic Particles TIM SYKES,
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— The results from experimental investigations of horizontally vibrated mixtures of
anisotropic poppy seeds and long chains of linked spheres will be presented. A critical
packing fraction was observed to be required to initiate a transition to segregation.
The average size of the resulting patterns was measured and the concentration ratio
of the mixtures was varied by changing the number of chains present in the mixtures.
A change in the order of the transition, from second to first order with associated
hysteresis, was observed as the chain number was reduced. This gave rise to three
distinct regions of behaviour: segregated, mixed and a bi-stable state.

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