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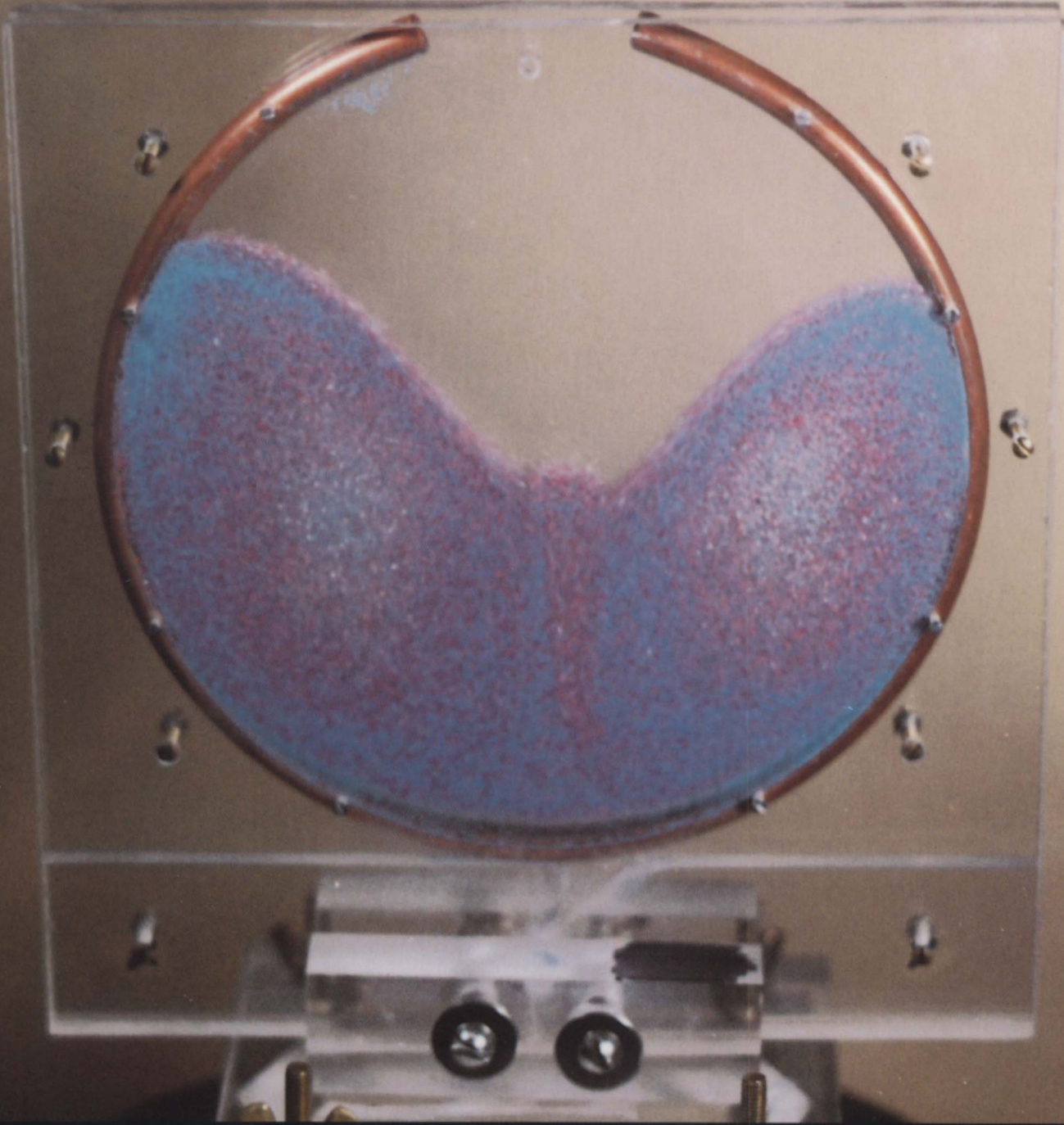
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Mesososcopic Disorder



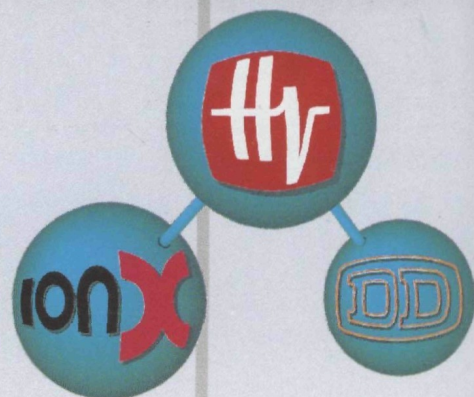
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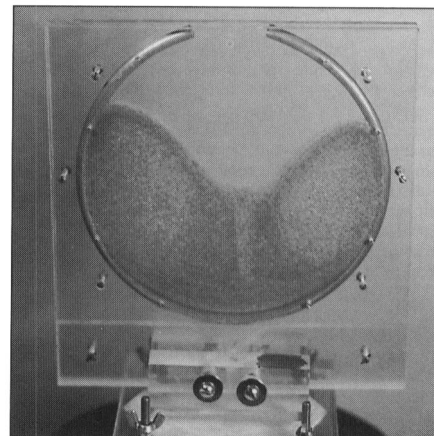
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ON THE COVER: The butterfly pattern was made by intense vertical vibration of granular material and shows both surface waves and convection rolls. The cell has a circular cross section with a diameter of 14.5 cm and has a thickness of 0.6 cm. The sand forms two counter rotating convection rolls in the bulk, moving upward along the side walls, diagonally downward along the top surface and returning to the bottom of the vessel in a wide flow in the center. The vibration causes surface waves to propagate along the top of the material. The waves coming from each side collide, forming a bulge in the middle of the container. For more about this topic, see "What is Shaking in the Sandbox?" on p. 25. Photo courtesy of H.M. Jaeger, J.B. Knight, C-h. Liu, and S.R. Nagel.

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The Materials Research Society (MRS), a non-profit scientific association founded in 1973, promotes interdisciplinary goal-oriented basic research on materials of technological importance. Membership in the Society includes nearly 11,600 scientists, engineers, and research managers from industrial, government, and university research laboratories in the United States and nearly 50 countries.

The Society's interdisciplinary approach differs from that of single-discipline professional societies because it promotes information exchange across the many technical fields touching materials development. MRS sponsors two major international annual meetings encompassing approximately 50 topical symposia, and also sponsors numerous single-topic scientific meetings. The Society recognizes professional and technical excellence, conducts short courses, and fosters technical interaction in local geographic regions through Sections and University Chapters.

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