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How Does Rubber Crystallize Upon Application of Strain MINDAUGAS RACKAITIS, XIAORONG WANG, Bridgestone Americas Center for Research and Technology — Strain induced crystallization of natural and synthetic rubbers is one of the most interesting phenomena in the field of rubber science and technology. Most of the research in the field was done using X-ray diffraction techniques. However up to this day there are no reports of direct observation of strain induced crystallization of rubber. This presentation reports first atomic force micrographs of high cis polybutadiene rubber surface at various strains. The crystallization of the rubber was confirmed by X-ray diffraction and crystallite orientation is discussed.

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