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Penetrant Diffusion in a SEBS Triblock Copolymer by Pulse Field Gradient NMR ALAN JONES, Clark University, MARCUS GIOTTO, ALANA CANFIELD, GUOXING LIN, Clark University — Solid triblock copolymers can serve as the basis for membranes in such applications as separations and fuel cells. Diffusion of a low molecular weight penetrant in such a membrane is strongly affected by the morphology. The effect of the morphology on the translational motion of the penetrant can be directly assessed by pulse field gradient NMR measurements. The rotational and translational motion of 2,2,4-trimethylpentane (TMP) in a SEBS triblock will be characterized by NMR. TMP is primarily soluble in the rubbery EB phase of the SEBS triblock so that this phase then acts as the conductive component of the membrane.

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