Abstract Submitted
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The Antimicrobial Activity of Porphyrin Attached Polymers LESLEY THOMPSON — We are interested in testing the antimicrobial activity of a porphyrin that is attached to a polymer. The porphyrin (5-(4-carboxyphenyl)-10,15,20-tris-(4-pryridyl)) was synthesized from methyl 4-formyl benzoate, 4-pyridinecarboxaldehyde, and pyrrole and attached to a copolymer of polystyrene/poly(vinyl benzyl chloride), which was synthesized by free radical polymerization. The antimicrobial activity of the polymer-attached porphyrin was then determined for gram-negative E. Coli grown to 0.80 OD. In this procedure, glass slides were coated with polymer-attached porphyrin via dip-coating, and the E. Coli bacteria were plated in Luria Broth media. The plates were subsequently exposed to light overnight before they were incubated as porphyrins act as photo-sensitizers when irradiated with light. The polymer-attached porphyrin did exhibit antimicrobial activity and parameters that affect its efficiency will be discussed.

Lesley Thompson

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