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Post-thermal treatment characterization of optically transparent polymer and dye pH sensing films DANIELA TOPASNA, GREGORY TOPASNA, Virginia Military Institute, TOPASNA TEAM — Thin films fabricated using the ionically self-assembled monolayers (ISAM) technique incorporating poly(allylamine hydrochloride) and Direct Yellow 4 for optically transparent pH sensing films were created. These films have potential applications in the food industry, biomedical, or environmental fields, especially for remote sensing. The absorption of the film changes when the pH of the surrounding medium changes. Films were characterized by atomic force microscopy and absorbance measurements before and after thermal treatment. The pH sensing properties remain unchanged upon exposure to a range of temperatures.

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