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(71) Applicant *(for all designated States except US)*: **PPG INDUSTRIES OHIO, INC.** [—/US]; 3800 West 143rd Street, Cleveland, Ohio 44111 (US).

(72) Inventors: **PURDY, Sean**; 108 Pamela Drive, Allison Park, Pennsylvania 15101 (US). **VANIER, Noel**; 405 Potomac Court, Wexford, Pennsylvania 15090 (US). **XU, Xiangling**; 106 Woodshire Road, Pittsburgh, Pennsylvania 15215 (US). **CAVLOVICH, Robert**; 117 Chowning Court, Gibsonia, Pennsylvania 15044 (US).

(74) Agent: **MEYERS, Diane, R.**; PPG Industries, Inc., One PPG Place - 39th Floor, Pittsburgh, Pennsylvania 15272 (US).

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(54) Title: CRYSTALLINE COLLOIDAL ARRAYS RESPONSIVE TO AN ACTIVATOR

(57) Abstract: A method of producing a radiation diffractive sensor that diffracts radiation according to Bragg s law is disclosed. The sensor is produced by forming an ordered periodic array of particles on a substrate, coating the array of particles with a polymeric matrix, curing the matrix to fix the array of particles within the matrix and contacting the fixed array with an activator, wherein the activator shifts the wavelength of radiation diffracted by the sensor from a first wavelength to a second wavelength.

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