Growth of potassium iodide single-crystals using ion track membranes as templates

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A principle possibility is demonstrated to apply the ion track membranes as a template for the crystallization of inorganic salts. As an example, potassium iodide has been grown in a matrix of etched ion tracks produced in polycarbonate foils. Arrays of stable free-standing cylindrical microcolumns are observed after dissolution of the organic matrix.

They represent single crystals oriented with their ‹100› or ‹110› crystallographic directions along the cylinder axes. Possible ways to govern their predominant orientations are briefly discussed.