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(54) Title: POROUS CERAMIC MATRIX

(57) Abstract: A porous ceramic matrix contains a plurality of ceramic particles adhered to each other, and a plurality of channels defined by surfaces of neighbouring ceramic particles, the channels each having an average diameter of 0.5-2.5 μm . Preferred ceramics also have a porosity of 25.0-40.0%, a Darcy's Permeability of $1.57\text{-}34.8 \times 10^{-14} \text{ m}^2$, and a mechanical strength of 25-64 MPa. Also disclosed is a method of preparing such a porous ceramic matrix, comprising providing a pellet containing ceramic particles that are coated with a monomer, a catalyst, and a binder; polymerising the monomer in the solid state by heating, then carbonizing and sintering the pellet.



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