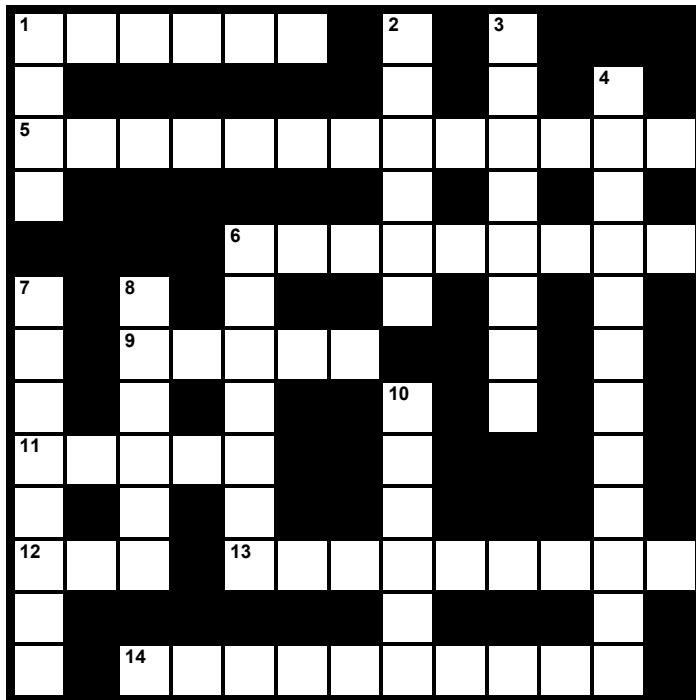


Materials_Science_13x13_2003-12-05

B.B. Huria



Across

- 1 A high temperature heat treatment that increases the density and strength of a ceramic piece. (6)
- 5 A grinding wheel composed of an abrasive grit and bonding agent. (8,5)
- 6 Resistance to flow. (9)
- 9 A metallic substance that is composed of two or more elements. (5)
- 11 a negatively charged non-metallic ion. (5)

Down

- 12 An atom with a positive charge because it has had electrons removed or a negative charge because it has had electrons added. (3)
- 13 Upon cooling, one solid phase transforms isothermally and reversibly into two new solid phases that are intimately mixed. (9)
- 14 The investigation of microstructural elements using some type of microscope. (10)

Down

- 1 A polymer that has been made porous (or spongelike) by the incorporation of gas bubbles. (4)
- 2 To rapidly cool a material. (6)
- 3 The property of sticking together (as of glue and wood) or the joining of surfaces of different composition. (8)
- 4 The quantity of heat required to produce a unit temperature rise per mole of material. (4,8)
- 6 The charge on an ion based on the

number of electrons transferred or shared within a specific structure. (7)

- 7 Erosion by friction. (8)
- 8 A positively charged metallic ion. (6)
- 10 Force per unit area. (6)