

Chapter-1

- ***MSE-201-R***
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Processing → Structure → Properties → Performance

FIGURE 1.1 The four components of the discipline of materials science and engineering and their linear interrelationship.

FIGURE 1.2

Photograph showing the light transmittance of three aluminum oxide specimens. From left to right: single-crystal material (sapphire), which is transparent; a polycrystalline and fully dense (nonporous) material, which is translucent; and a polycrystalline material that contains approximately 5% porosity, which is opaque. (Specimen preparation, P. A. Lessing; photography by J. Telford.)

