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Autore	Hull, Derek
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Altri autori (Persone)	Bacon, D. J.
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Nota di contenuto	Defects in Crystals; Crystalline materials; Simple crystal structures; Observation of Dislocations: Surface methods; Decoration methods; Electron microscopy; Movement of Dislocations: Concept of slip; Dislocations and slip; The slip plane; Cross slip; Elastic dislocation; Dislocations in Face-Centred Cubic Metals: Perfect dislocations; Partial dislocations - the Shockley partial; Dislocations in Other Crystal Structures: Dislocations in hexagonal close-packed metals; Dislocations in body-centred cubic metals; Jogs and the Intersection of Dislocations: Intersection of dislocations; Movement of dislocations containing elementary jogs; Origin and Multiplication of Dislocations: Dislocations in freshly grown crystals; Homogeneous nucleation of dislocations; Dislocation Arrays and Crystal Boundaries: Plastic deformation, recovery and recrystallisation; Simple dislocation boundaries; Strength of Crystalline Solids: Temperature-and strain-rate-dependence of the flow stress; The Peierls stress and lattice resistance
Sommario/riassunto	Introduction to Dislocations was first published in 1965 in a series aimed at undergraduate and postgraduate students in metallurgy and materials science and related disciplines. At the time, the subject was maturing and it was expected that 'dislocation concepts' would remain a core discipline for a very long time. As expected, the book has been, and remains, an important undergraduate text all over the world. A wider range of materials has emerged since 1965, most notably in the

field of electronics and micro-engineering. The principles of dislocation theory still apply but some of the detail requires further treatment. This fourth edition provides an essential basis for an understanding of many of the physical and mechanical properties of crystalline solids. This new edition has been extensively revised and updated to reflect developments in the understanding of the subject, whilst retaining the clarity and comprehensibility of the previous editions

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