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The present topical volume presents a representative cross-section of some recent advances made in the area of diffusion. The range of topics covered is very large, and, this reflects the enormous breadth of the topic of diffusion. The areas covered include diffusion in intermetallics, phenomenological diffusion theory, diffusional creep, kinetics of steel-making, diffusion in thin films, precipitation, diffusional phase transformations, atomistic diffusion simulations, epitaxial growth and diffusion in porous media. Review from Book News Inc.: In 13 invited and peer-reviewed papers, scientist