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is divided into eighteen  
chapters. The first

seven chapters deal  
with structure related  
aspects such as lattice  
and crystal structures,  
bonding, packing and  
diffusion of atoms  
followed by  
imperfections and  
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...Solid-state physics  
refers to that branch of  
physics that deals with  
the study of solid  
matter that is rigid. It is  
done through an  
assortment of  
techniques including  
quantum mechanics,  
electromagnetism,  
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Solid-state physics  
refers to that branch of  
physics that deals with  
the study of solid  
matter that is rigid. It is  
done through an  
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techniques including  
quantum mechanics,  
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the study of rigid

matter, or solids,

through methods such  
as quantum

mechanics,

crystallography,

electromagnetism, and  
metallurgy. It is the

largest branch of

condensed matter

physics. Solid-state

physics studies how

the large-scale

properties of solid  
materials result from

their atomic-scale

properties. Thus, solid-

state physics forms a

theoretical basis of

materials science. It

also has direct

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Packing structures for

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