





	Aniso	tropy		
Anisotropy: m	naterials prop	erties depe	ndent of	
□ Isotronic: ma	terials proper	ties indepe	ndent of the	
direction				
direction Table 3.3 Several Me Orientation	Modulus of El tals at Various s	lasticity Valı s Crystallogr	ies for aphic	
direction Table 3.3 Several Mer Orientation	Modulus of El tals at Various s <u>Modulu</u>	lasticity Valu s Crystallogr <i>us of Elasticity</i>	ues for aphic • (GPa)	
direction Table 3.3 Several Me Orientation <u>Metal</u>	Modulus of El tals at Various s <u>Modulu</u> [100]	lasticity Valu s Crystallogr <i>us of Elasticity</i> [ <i>110</i> ]	1es for aphic 7 ( <i>GPa</i> ) [111]	
direction Table 3.3 Several Met Orientation <u>Metal</u> Aluminum	Modulus of El tals at Various s <u>Modulu</u> [100] 63.7	lasticity Valu s Crystallogr <i>us of Elasticity</i> [110] 72.6	ues for aphic • ( <i>GPa</i> ) [ <i>111</i> ] 76.1	
direction Table 3.3 Several Met Orientation <u>Metal</u> Aluminum Copper	Modulus of El tals at Various s <u>Modulu</u> [100] 63.7 66.7	lasticity Valu s Crystallogr <i>us of Elasticity</i> [ <i>110</i> ] 72.6 130.3	<b>les for</b> aphic <u>(<b>GPa</b>)</u> [ <b>111</b> ] 76.1 191.1	
direction Table 3.3 Several Met Orientation <u>Metal</u> Aluminum Copper Iron	Modulus of El tals at Various s <u>Modula</u> [100] 63.7 66.7 125.0	lasticity Valu s Crystallogr <i>us of Elasticity</i> [ <i>110</i> ] 72.6 130.3 210.5	<b>les for</b> aphic ( <i>GPa</i> ) [ <i>111</i> ] 76.1 191.1 272.7	





















































## Summary Point, Line, and Area defects exist in solids. The number and type of defects can be varied and controlled (e.g., *T* controls vacancy conc.) Defects affect material properties (e.g., grain boundaries control crystal slip). Defects may be desirable or undesirable (e.g., dislocations may be good or bad, depending on whether plastic deformation is desirable or not.)