

**TABLES**

Table 1.1	Limitations and capabilities of TNDT procedures
Table 1.2	List of some common applications of TNDT procedures
Table 2.1	Values of physical constants of interest
Table 2.2	Blackbody radiation functions
Table 3.1	Thermal conductivity value $k$ of common materials at room temperature
Table 3.2	Common shape factors (unidimensional conduction)
Table 3.3	Common values of convective heat transfer coefficient for natural and forced convection
Table 3.4	Resistor configurations
Table 3.5	Equivalent thermal resistance ( $R = \Delta T/q$ ) for the three heat transfer modes
Table 3.6	Effect of ambient temperature on heat sink dissipation (Example 3.11)
Table 3.7	Useful Laplace transforms used in differential equation solving
Table 3.8	Thermal properties of some materials
Table 3.9	Modeling parameters
Table 3.10	List of Matlab™ m-script available in Appendix F
Table 4.1	Common thermocouple configurations
Table 4.2	Some optical properties for a few materials
Table 4.3	Materials commonly used for coatings
Table 5.1	List of Matlab™ m-scripts available in Appendix F
Table 6.1	List of Matlab' m-scripts available in Appendix F
Table 7.1	Knoop indenter hardness of hard materials
Table 7.2	Natural elements discussed
Table 7.3	List of aluminum alloys (Aluminum Association)
Table 8.1	Emissivity of common material
Table 8.2	Passman and Larmore tables (H <sub>2</sub> O)
Table 8.3	Passman and Larmore tables (CO <sub>2</sub> )
Table 8.4	Coefficient of diffusion for rain in different conditions
Table 10.1	Illustration of disjoint time zone case (see for instance Matlab™ script timezones2.m available in Appendix F)
Table 10.2	Illustration of continuous time zone case (see for instance Matlab™ script timezones2.m available in Appendix F)
Table 10.3	Relative computation time for the gradient image

Table 10.4	Expected accuracy of quantitative characterization for selected parameters
Table 10.5	Percent of correct characterization (categories are over whole image: over sound area regions: over flaw regions)
Table 10.6	Characteristics of discussed methods for shape correction in TNDT
Table 10.7	List of Matlab' m-scripts available in Appendix F.
Table 11.1	Parameter selection for automatic defect detection in turbine blades <sup>a</sup>
Table 11.2	Classes of reported faults.
Table 11.3	Compensation for wind.
Table 11.4	ASTM standards for infrared thermography and imaging
Table 11.5	R-value for windows