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Nota di contenuto	Intro -- &lt -- named-book-part-body&amp -- #62 -- &lt -- p&amp -- #62 -- If thermoluminescence (TL) is the proverbial nut, then it is fair to say it has been hammered to pieces. Surprisingly, phototransferred thermoluminescence (PTTL) has been spared the same over-exuberant treatment. Thermoluminescence is a method for studying point defects in insulators and appears under controlled heating of an irradiated material. Changes in electron trapping defects and luminescence sites can readily be monitored in temperature-wavelength-intensi -- Acknowledgements -- Author biography -- Makaiko L Chithambo -- Chapter Introduction -- 1.1 Phototransferred thermoluminescence -- 1.2 Thermoluminescence -- 1.3 Models of thermoluminescence -- 1.3.1 The tutorial one-trap one-recombination-centre approximation -- 1.3.2 Beyond the instructive: multiple localised states -- 1.4 Calculational methods -- 1.4.1 First order kinetics -- 1.4.2 Second order kinetics -- 1.4.3 Other descriptions of thermoluminescence processes -- 1.5 Defects and disorder in solids -- 1.5.1 Defect pair model -- 1.6 Non-radiative transitions -- 1.6.1 Intra-band transitions -- 1.6.2 Configurational coordinate model -- 1.7 Overview -- References -- Chapter Experimental methods -- 2.1 Introduction -- 2.2 Conventional thermoluminescence: BeO as an exemplar -- 2.2.1 Glow curve features

-- 6.1 Fluorapatite -- 6.2 Obsidian -- 6.3 CaSO4: Mg -- 6.4 KCl -- 6.5 Microcline -- 6.5.1 Introduction -- 6.5.2 Characteristics of TL and PTTL glow curves -- 6.5.3 Step-annealing -- 6.5.4 PTTL time-response profiles -- 6.5.5 Dose response -- 6.6 SrAl2O4:Eu2+,Dy3+ -- 6.6.1 Introduction -- 6.6.2 PTTL of SrAl2O4:Eu2+,Dy3+.
6.7 Selected applications -- 6.7.1 Gorilla glass -- 6.7.2 Ge-doped SiO2 optical fibre -- 6.7.3 LiF-TLD 100 -- 6.7.4 Alumina substrates -- 6.8 Summary -- References.

Sommario/riassunto

The purpose of this book is to present and discuss the theory, measurement and analysis of phototransferred thermoluminescence, a method for studying point defects in insulators.