

Contents

Part I Analytical Modeling

1	Simple Lap Joint Geometry	3
	Andrew D. Crocombe and Ian A. Ashcroft	
2	Analysis of Cracked Lap Shear (CLS) Joints	25
	Liyong Tong and Quantian Luo	
3	Analytical Models with Stress Functions	53
	Toshiyuki Sawa	

Part II Numerical Modeling

4	Complex Constitutive Adhesive Models	95
	Erol Sancaktar	
5	Complex Joint Geometry	131
	Andreas Öchsner, Lucas F.M. da Silva and Robert D. Adams	
6	Progressive Damage Modelling	155
	Marcelo F.S.F de Moura	
7	Modelling Fatigue in Adhesively Bonded Joints	183
	Ian A. Ashcroft and Andrew D. Crocombe	
8	Environmental Degradation	225
	Andrew D. Crocombe, Ian A. Ashcroft and Magd M. Abdel Wahab	
9	Non-Linear Thermal Stresses in Adhesive Joints	243
	Mustafa Kemal K. Apalak	

10 Impact	279
Chiaki Sato	
11 Stress Analysis of Bonded Joints by Boundary Element Method	305
Madhukar Vable	
Index	327