

CONTENTS

Chapter	1. Physical properties	1
	2. How instruments are selected	17
	3. Process measurements	35
	4. Flow of fluids in conduits	51
	5. Orifice flow meters	65
	6. Plant stream analyzers	83
	7. Installing process instruments	99
	8. Winterizing process instruments	115
	9. Alarms and shutdown systems	135
	10. Process control from square one	174
	11. Nature of process control systems	171
	12. Controller responses	187
	13. Optimum controller settings	203
	14. Variation on feedback control	225
	15. Control valves	259
	16. Realistic control valve pressure drops	289
	17. Sizing control valves	301
	18. Perspective on process computer control	309
	19. Operation centers	327
	20. Appendix	341
	21. Bibliography	353
	22. Index	355