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| Descrizione fisica      | 1 online resource (389 p.)   |
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| Soggetti                | Laboratories - Design and construction<br>Science rooms and equipment  |
| Lingua di pubblicazione | Inglese  |
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| Livello bibliografico   | Monografia   |
| Note generali           | Includes index.  |
| Nota di bibliografia    | Includes bibliographical references and index.   |
| Nota di contenuto       | Front Cover; Laboratory Design Guide; Copyright Page; Contents; List of figures; List of colour plates; Acknowledgements; Introduction; Summary of recommendations; Chapter 1 - Design brief; 1.1 Initiating the brief; 1.2 Generic laboratories; 1.3 Type and function of the laboratory; 1.4 Staff; 1.5 Hazards; 1.6 Work space, benches and services; 1.7 Storage; 1.8 Equipment; 1.9 Work environment; 1.10 Staff facilities; 1.11 Meeting rooms; 1.12 Car parking; 1.13 Visitors; 1.14 Security; 1.15 Case studies; Chapter 2 - Design methodology; 2.1 Project team; 2.2 Project meetings<br>2.3 Project programme and budget<br>2.4 Returning the brief; 2.5 Design synthesis; 2.6 Design development; 2.7 Contract documentation; 2.8 Construction management; Chapter 3 - Site and buildings; 3.1 Location; 3.2 Site planning; 3.3 Building design; 3.4 Interior design; 3.5 Special laboratories; 3.6 External bulk storage; 3.7 Teaching laboratories and the virtual experiment; Chapter 4 - Laboratory furniture and services; 4.1 Workbenches; 4.2 Storage cupboards and drawers; 4.3 Non-joinery items of furniture; 4.4 Glass wash facilities; 4.5 Laboratory services; 4.6 Recent technology<br>Chapter 5 - Special cabinets and benches<br>5.1 Fume cupboards; 5.2 |

Local exhaust ventilation; 5.3 Biological safety cabinets; 5.4 Laminar flow cabinets; 5.5 Down-draught benches; 5.6 Flammable liquids cabinets; 5.7 Decanting benches; 5.8 Anti-vibration benches; 5.9 Equipment/instrumentation benches; 5.10 Workbenches for disabled staff; Chapter 6 - Laboratory computers, instrumentation and equipment; 6.1 Computers; 6.2 Instrumentation for analysis and testing; 6.3 Centrifuges; 6.4 Ovens and autoclaves; 6.6 Refrigerators and cool rooms; 6.7 Access for large equipment; Chapter 7 - On completion  
7.1 Commissioning equipment 7.2 Security; 7.3 Emergency procedures; 7.4 Services controls and emergencies; 7.5 Building manual; 7.6 As-built drawings; 7.7 Joint final inspections; 7.8 Publication; Chapter 8 - Maintenance; 8.1 Bench tops; 8.2 Flooring; 8.3 Filters; 8.4 Waste disposal; 8.5 Safety stations; 8.6 Laboratory services and equipment; 8.7 Laboratory audits; Chapter 9 - Environmental design: Internal courtyards as an element of ESD: Matthew Jessup, BE (Hons), Senior Environmental Analyst and Su-fern Tan (BE, BA, DipEngPrac), Environmental Analyst, Advanced Environmental Concepts  
9.1 Introduction 9.2 Design elements; 9.3 The benefits of internal courtyards; 9.4 A simple concept; 9.5 Conclusion; Chapter 10 - Occupational health and safety: Caroline Langley BSc M Safety Sc Grad Dipl Occup Hygiene MSIA, Director, Injury Prevention & Management, Hobart, Tasmania; 10.1 Introduction; 10.2 Design Hazard Review; 10.3 Hierarchy of control; 10.4 Sources of information in Australia; 10.5 Conclusion; Chapter 11 - Hydraulic services: Livio Chiarot, Dip Tech MIE Aust AHSCA APPA, Director of Acor Consultants, Engineers, Managers, Infrastructure Planners; 11.1 General  
11.2 Sanitary drainage and plumbing

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## Sommario/riassunto

Laboratory Design Guide 3rd edition is a complete guide to the complex process of laboratory design and construction. With practical advice and detailed examples, it is an indispensable reference for anyone involved in building or renovating laboratories. In this working manual Brian Griffin explains how to meet the unique combination of requirements that laboratory design entails. Considerations range from safety and site considerations to instrumentation and special furniture, and accommodate the latest laboratory practices and the

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