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Titolo	Modelling the Fate of Chemicals in the Environment and the Human Body // edited by Philippe Ciffroy, Alice Tediosi, Ettore Capri
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Descrizione fisica	1 online resource (XX, 262 p. 30 illus., 19 illus. in color.)
Collana	The Handbook of Environmental Chemistry, , 1867-979X ; ; 57
Disciplina	363.7384
Soggetti	Environmental chemistry Geochemistry Analytical chemistry Environmental Chemistry Analytical Chemistry
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Evolution and future of Human Health and Environmental Risk Assessment -- SWOT analysis of the MERLIN-Expo tool and its relevance in legislation frameworks -- Standard documentation of exposure models – MERLIN-Expo Case Study -- Modelling the fate of chemicals in surface waters -- Modelling the fate of chemicals in the atmosphere -- Modelling the fate of chemicals in soils -- Modelling the fate and transfer of substances discharged into soil unsaturated zones and water tables -- Modelling the fate of chemicals in plants -- Modelling bioaccumulation in aquatic organisms and in mammals -- Modelling the fate of chemicals in humans using a life-time physiologically based pharmacokinetic (PBPK) model in MERLIN-Expo.
Sommario/riassunto	This volume focuses on modelling the fate of chemicals in the environment and the human body to arrive at an integrated exposure assessment. It covers five broad topics, namely: future challenges in exposure assessment; the evolution of human health and environmental risk assessment; standard documentation for exposure models; modelling different environmental components (i.e. surface waters, atmosphere, soil, groundwater, plants, aquatic organisms and

mammals); and the fate of contaminants in humans. This work draws on the authors' and editors' extensive experience and a range of different research activities, including case studies, that have led to the development of MERLIN-Expo, a standardised software package for simulating the fate of chemicals in the main environmental systems and in the human body in an integrated manner. It will be of considerable interest to researchers and students, risk managers, and policy- and decision-makers whose work involves environmental protection and human health.
