

1. Record Nr.	UNINA9911131768303321
Titolo	Iodine : characteristics, sources, and health implications / / Adelina H. Martinez and Edelmiro J. Perez, editors
Pubbl/distr/stampa	New York, : Nova Biomedical Books, c2012
ISBN	1-61942-710-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (176 p.)
Collana	Biochemistry research trends Chemical engineering methods and technology
Altri autori (Persone)	MartinezAdelina H PerezEdelmiro J
Disciplina	612.3/924
Soggetti	Iodine deficiency diseases Iodine in the body Iodine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""IODINE CHARACTERISTICS, SOURCES AND HEALTH IMPLICATIONS ""; ""IODINE CHARACTERISTICS, SOURCES AND HEALTH IMPLICATIONS ""; ""Contents ""; ""Preface ""; ""Iodine during Pregnancy and Lactation: Supplementation Versus Exposure ""; ""Iodine Metabolism During Pregnancy ""; ""Transplacental Passage of Iodine""; ""Iodine Requirements During Pregnancy""; ""Mechanisms of Adaptation to Iodine Deficiency ""; ""Maternal Repercussions of Iodine Deficiency ""; ""The Concept of Overstimulation of the Thyroid ""; ""Gestational Goitrogenesis""; ""Maternal Hypothyroxinemia "" ""Autoimmune Thyroid Disorders and Pregnancy "" ""Epidemiology of Iodine Deficiency During Pregnancy""; ""Exposure to Iodized Agents""; ""References ""; ""Semiconductor-Photocatalyzed Iodine Generation""; ""Abstract ""; ""1. Introduction ""; ""2. Semiconductor-Photocatalysis""; ""3. Mechanism of Iodine Generation ""; ""4. Semiconductor Nanocrystals in Aqueous Suspension as Photocatalysts""; ""5. Particulate Semiconductors in Aqueous Alcoholic Suspension as Photocatalysts""; ""6. Iodine Generation with Sunlight ""; ""7. Immobilized Semiconductor Powders as Photocatalyst"" ""8. TiO2 Film as Photocatalyst"" ""9. Dye-Sensitized TiO2 as

Photocatalyst ""; ""10. Ag-TiO₂ as Photocatalyst ""; ""11. Pt-TiO₂ as Photocatalyst ""; ""12. Layered Metal Oxide Semiconductor as Photocatalyst ""; ""13. Solar Photoelectrocatalysis ""; ""14. Enhanced Solar Photoelectrocatalysis by Semiconductor Mixtures ""; ""Conclusion ""; ""References ""; ""Iodine, Iodine Transporters and Thyroid Cancer ""; ""Abstract ""; ""Abbreviations ""; ""1. Introduction ""; ""2. Iodine and Thyroid Cancer""; ""2.1. Thyroid Cancer ""; ""2.2. Iodine in Thyroid Cancer Initiation and Progression"" ""2.3. Iodine in Thyroid Cell Proliferation and Apoptosis """"3. Iodine Transporters and Thyroid Cancer""; ""3.1. Iodine Transporter Expression in Thyroid Cancer""; ""Sodium Iodide Transporter ""; ""Pendrin and Apical Iodide Transporter ""; ""3.2. Iodine Regulated Iodine Transporters in Thyroid Cancer ""; ""4. Iodine and Iodine Transporters Correlated Genetic Alterations in Thyroid Cancer""; ""4.1. Iodine Correlated Genetic Alterations in Thyroid Cancer""; ""4.2. Iodine Transporters Correlated Genetic Alterations in Thyroid Cancer ""; ""Conclusion ""; ""References "" ""Thyroid Follicular Cell Carcinoma and Thyroiditis in Relation to Iodine Intake """"Abstract ""; ""Introduction ""; ""General Features of Thyroid Cancer and Autoimmune Thyroiditis""; ""Thyroid Carcinoma and Thyroiditis in Salta, Argentina ""; ""Materials and Methods""; ""Thyroid Carcinoma ""; ""Thyroiditis ""; ""General Discussion with Review of the Literature ""; ""Papillary and Follicular Carcinoma ""; ""Undifferentiated (Anaplastic) Carcinoma ""; ""Thyroiditis in Iodine-Deficient and Sufficient Regions ""; ""Thyroiditis and Thyroid Carcinoma ""; ""Conclusion ""; ""References "" ""Optical Plasma Characteristics and Kinetics of Processes in the Longitudinal Glow Discharge in Mixtures of Helium and Iodine Vapours ""

Sommario/riassunto

Iodine is an important trace element and an essential substrate for the synthesis of thyroid hormones. Iodine deficiency can lead to goiter, hyperthyroidism, mental retardation and impaired growth. In this new book, the authors present topical research in the study of the characteristics, sources and health implications of iodine. Discussed in this compilation are the potential mechanism of iodine and iodine transporters in thyroid cancer; iodine supplementation and exposure during pregnancy and lactation; semiconductor-photocatalyzed iodine generation; severe iodine deficiency disorders; and the role of cardiac imaging using iodine media in the detection of arrhythmogenic heart disease.
