

1. Record Nr.	UNISALENTO991002172899707536
Autore	Seidlitz, Carl Siegmund von
Titolo	Briefe über Gott und Unsterblichkeit : Nebst einem Dialog über Raum und Zeit
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Descrizione fisica	190 p. ; 19 cm.
Collana	Aetas Kantiana ; 253
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Livello bibliografico	Monografia
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2. Record Nr.	UNINA9910805577203321
Autore	Kircher Manfred
Titolo	CO2 and CO as Feedstock : Sustainable Carbon Sources for the Circular Economy // edited by Manfred Kircher, Thomas Schwarz
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Collana	Circular Economy and Sustainability, , 2731-5517
Altri autori (Persone)	SchwarzThomas
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Nota di contenuto	<p>CO<sub>2</sub> and CO: sustainable carbon sources for circular value creation -- CO<sub>2</sub>: Sources and volumes -- Conventional processes for hydrogen production -- Alternative biological and biotechnological processes for hydrogen production -- Production of synthesis gas -- Chemical-catalytic conversion of CO<sub>2</sub> and CO -- Microbial processes: Biocatalytic conversion -- Microbial processes for the conversion of CO<sub>2</sub> und CO -- Microbial processes: Current developments in gas fermentation -- Microbial processes: Production of polyhydroxyalkanoates from CO<sub>2</sub> -- Microbial processes: Photosynthetic microalgae -- Challenges in down streaming from chemical and biotechnological processes -- Utilization of C<sub>1</sub> gas streams from steelworks -- Utilization of C<sub>1</sub> gas streams from cement plants -- Utilization of C<sub>1</sub> gas streams form power plants -- Utilization of C<sub>1</sub> gas streams from chemical processes -- Utilization of C<sub>1</sub> gas streams from bioprocesses including biogas plants -- Utilization of residuals and C<sub>1</sub> gas streams: Organic waste, sludge and agricultural residuals -- Utilization of residuals and C<sub>1</sub> gas streams: Pyrolysis process of Concord Blue -- Utilization of residuals and C<sub>1</sub> gas streams: CO<sub>2</sub> sources in agriculture -- Recycling CO<sub>2</sub> from waste incineration closes carbon cycles -- Utilization of C<sub>1</sub> gases: Impact on sustainability -- Regional Development -- Utilization of C<sub>1</sub> gases: The regulatory framework -- R&amp;D&amp;I and industry examples: Challenges and opportunities in scaling up -- R&amp;D&amp;I and industry examples: Covestro's Dream Production -- R&amp;D&amp;I and industry examples: LanzaTech's gas fermentation -- R&amp;D&amp;I and industry examples: The CCU project Carbon2Chem -- R&amp;D&amp;I and industry examples: The CO<sub>2</sub> electrorefinery - a new concept for carbon dioxide (CO<sub>2</sub>) capture and utilization (CCU).-R&amp;D&amp;I and industry examples: The vision of b.fab GmbH -- R&amp;D&amp;I and industry examples: Industrial gases as a carbon source for terpene production -- ZeroCarbFP: A two-step microbial conversion of CO<sub>2</sub>-rich off-gas into valuable products -- Introduction -- R&amp;D&amp;I and industry examples: Ineratec's ICO<sub>2</sub>CHEM project to utilize CO<sub>2</sub> -- Piloting, scale-up, and demonstration -- Final evaluation and summary.</p>
Sommario/riassunto	<p>Climate protection and raw material change require new, sustainable carbon sources for the chemical and fuel industries. In fact, processes that recycle carbon-containing emission and gas streams industrially are reaching industrial practice. They will make an important contribution to reducing carbon emissions and moving towards a true carbon circular economy. This book describes the basics of chemical and biotechnological processes for converting CO and CO<sub>2</sub> into chemicals and fuels. Furthermore, it addresses potentials for the manufacturing economy, industrial sites and regions and answers the following questions. Which emission and gas streams offer feedstock potential? What processes are already implemented, being tested and under development? What products can be made from gaseous carbon sources? How can carbon emitting and consuming industries be linked into new value chains? What is the regulatory framework? What does the ecological footprint look like? How do the new processes contribute to the regional economy and thus to social acceptance among consumers and among decision-makers in companies and politics? Providing companies with sustainable carbon sources is a central question of the</p>

circular economy, which must be answered with technical processes, new cross-sector value chains, adapted infrastructure and further developed framework conditions. This concerns scientists and decision-makers in companies alike. In this book, they as well as interested laymen will find a comprehensive overview of the state of the art in both, technology and research, and of the overriding issues involved in establishing CO<sub>2</sub> and CO as feedstocks. The Editors Dr. Manfred Kircher, freelance consultant (KADIB - Kircher Advice in Bioeconomy), Member of the Board of BioBall e.V. (Bioeconomy in Metropolitan Regions) and Chairman of the Advisory Board of CLIB-Cluster e.V. (Cluster Industrial Biotechnology) Dr. Thomas Schwarz (†), Chief Scientific Officer of bitop AG and Chairman of the Board of CLIB-Cluster e.V. (Cluster Industrial Biotechnology).

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