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Collana	RSC green chemistry series, , 1757-7039 ; ; 9
Altri autori (Persone)	HoogendoornAlwin KasterenHan van
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Nota di contenuto	Introduction -- Biological conversion of syngas into ethanol -- Biological conversion of syngas into methane -- Enzymatic biodiesel -- Concluding remarks.
Sommario/riassunto	"Current world fossil oil production is struggling to meet demand and may even show a decline after 2010. It is therefore necessary to develop new energy efficient production pathways for transportation biofuels. This book offers an insight into three promising and innovative pathways for the biological production of biodiesel, ethanol and methane. These unconventional methods should provide higher product yields, less stringent feedstock specifications, lower chemical additive demand, reduced waste production and much better energy balances when compared to more traditional methods. The first pathway is the enzymatic production of a new kind of biodiesel where no glycerol waste is produced and a twenty percent higher product yield is obtained. The other two pathways are based on the biological conversion of syngas into ethanol or methane using various kinds of lignocellulosic biomass as the starting point. For each of the three pathways a comparison will be made with competing production

methods. The contents reflect extended desktop research and show practical experimental results. Government scientists, academics and biofuel producers with an interest in novel transportation fuels will all find this book to be essential reading."--Publisher description.