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**CATALYTIC CONVERSION OF OILS EXTRACTED
FROM SEEDS: FROM POLYUNSATURATED LONG CHAINS
TO FUNCTIONAL MOLECULES**

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Abstract

Nowadays, the development of renewable biobased products is one of the current challenges in chemistry. Not only because of the decreasing availability of petroleum resources, but also because of the growing interest of consumers and industrials in environmentally friendlier products.

Natural oils are considered to be one of the most important class of renewable source. Before an abundant and cheap supply of mineral oils became available for a wide range of product, vegetable oils were already used for lubricating purposes as well as for coatings and paints.

Vegetable oils are triglycerides containing saturated and unsaturated fatty acids (Figure 1). Therefore, the triglycerides are considered as building blocks to develop various types of innovative molecules and macromolecules.

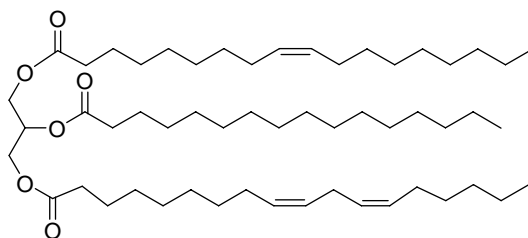
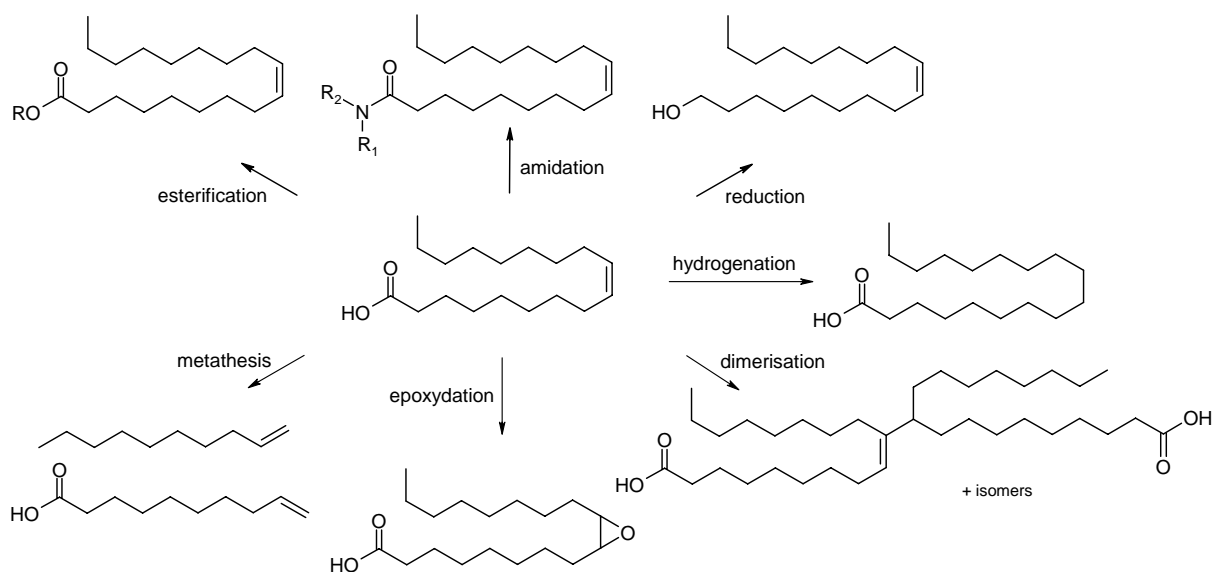


Figure 1 : Example of molecular structure of a triglyceride

This chapter will focus on the catalytic conversion of carboxylic functionalities and double bonds of fatty chains, involving acid/base homogeneous or heterogeneous catalysts, to yield to different functionalised compounds (Scheme 1).



Scheme 1 : Examples of possible transformations of oleic acid

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