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Interest to insure trainings in distillation on industrial sites

Since 1986, I insure trainings on the distillation of alcohol solutions in the industrial sites of production of neutral alcohol and bioethanol, at least 10 days per year. After an introduction on the organisation of a plant producing neutral alcohol and bioethanol, I explain the principle of the ethanol distillation: the link between the reflux ratios, the heat required at the bottom and to evacuate at the top and the number of plates necessary. If used in the factory, I develop the influence of the pressure on the liquid-vapour equilibrium data, the boiling temperatures and the enthalpy, then I explain the principle of double effect distillation. Afterwards, I explain the behaviour of the main other volatile compounds (higher alcohols, esters, aldehydes, acids) and the way to take them off to produce a pure neutral alcohol. At least, I explain the way to overtake the azeotrope and to produce bioethanol with molecular sieves or extractive distillation with cyclohexane.

Thanks to these formations, I developed an expertise in the alcohol domain. Thus, since 1995, I supervise studies on the distillation of brandies (cognac, calvados, rum of Martinique) and since 2001, I supervised 3 students in doctorate (one in the rum field to optimise the quality, the second one on the simulation of the production of neutral alcohol and the third one on the distillation of bitter orange peels macerated in dilute neutral alcohol. At the moment I'm involved in the supervision of 3 doctorates: one on the simulation of the distillation of different brandies, the second one on the distillation of Cognac and the third one in continuation of the previous doctorate on the production of bitter orange peel distillate.

In plus, several engineers of AgroParisTech work in engineering companies specialized in the design of distilleries.