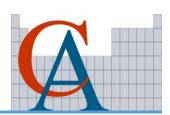
Dr. Arnold Chemie-Beratung Planung – Beratung - Information



Resumé Dr. Claudia Arnold



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Date of birth 25. Nov. 1965

Course of studies: Oct. 1984 – May 1990:

study of chemistry at the University of Hannover

Dissertation: May 1990 – Dec. 1990:

dissertation in polymer chemistry at the University

of Hannover

Doctorate: Oct. 1991 – Oct. 1994:

thesis work in the process development laboratories

of Pfizer (Illertissen)

Viva: Dec. 1995, University of Ulm

Work Experience

Apr. 1991 – Sep. 1991:

Seus Systemtechnik GmbH & Co. KG, Wilhelmshaven:

- development of several recycling procedures for plastics, printing chemicals
- planning of a polymer production plant that uses phosgene.

Oct. 1991 – Jul. 1994:

Work in the Pfizer process development laboratories, using the results for a thesis:

 process development for the synthesis and scale-up of a new antibiotic molecule.

Nov. 1994 – Mar. 1997:

Sigma Aldrich Chemie Gmbh, Neu-Ulm, bulk chemicals sales department:

- sale of bulk chemicals
- assistant sales manager
- project management for custom synthesis
- authorised representative for the introduction of ISO 9001.

Several chemical consulting project done as a sideline, especially on process development for waste gas purification and trouble shooting for waste gas purification plants.

Maternity Leave

Apr. 1997 – Apr. 2000:

More chemical consulting for engineering companies (especially for former employers) done as a sideline

Freelance Work

Since Apr. 2000:

Freelance consulting chemist in the field of industrial chemistry and process engineering.

Memberships

- GDCh, Gesellschaft Deutscher Chemiker e. V. (Society of German Chemists), chairman oft he
 <u>FFCh</u> section (freelance chemists and independent laboratory owners) from 2006 2013,
 member oft he computational chemistry section.
- <u>Science Consult KG</u>, limited partner since 2007
- <u>DECHEMA</u> e. V., member of the zeolite group.

Some reference projects in the field of zeolite science and technology:

Project Work done

Planning of an incineration plant for chemically contaminated sludge

Methylene chloride recycling plant for an

adhesive tape production unit

Air conditioning plant for the production of ultra-dry cold air

Off gas purification for a production unit for cylinder-head gaskets

Off gas purification unit for the sewer of a chemical plant

Sale of several used adsorptionplants

Several test plants for process development in the field of solvent drying

Development of several new healthcare products containing zeolites

- Prediction of incineration products
- Assessment of the feasibility of zeolite adsorption technique for off gas purification
- Design and cost assessment of a zeolite adsorption unit for solvent recycling under the conditions given (- 70 °C)
- Calculation of per-kg-cost of recycled solvent
- Design and cost assessment of a zeolite adsorption unit for air desiccation at - 55 °C
- Design and cost assessment for various off gas purification techniques, including adsorption
- Design and cost assessment of a zeolite adsorption unit
- Procurement of prospective buyers
- Design and cost assessment of a zeolite adsorption unit for ethanol drying
- Patent and literature research
- Drawing up of methods for the production and assay of laboratory samples of the new product

Dynamics of a compressed air drying unit with adsorbents

Improvement of a portable air conditioning device

PVC production plant, off gas stream of 150.000 m³/h

Natural zeolite mining

Vitamin production

- Literature search for data
- Calculations
- Implementations of features for the reduction of CO₂, CO, radioactivity and VOC inside of office buildings

Feasibility study for the capturing of vinyl chloride from the plant's off gas:

- Chemical calculations to predict the behavior of vinyl chloride on adsorbents, in water etc.
- Laboratory analysis of the zeolite mineral
- Prediction of possible applications and market chances of the zeolite
- Literature research for adsorptive methods to work up an aqueous mother liquor in production scale plants
- Drawing up of laboratory test procedures

Ibid. in the field of market research, sourcing and marketing of technical products:

Sourcing of a pharmaceutical compound

Air conditioning for a laser unit, removal of trace amounts of methanol

Feasibility study for a automobile tyre recycling plant

Feasibility study for the recycling of cooking fat – other uses besides incineration

- Research and negotiations to reestablish a deliverer for a rare pharmaceutical compound
- Patent, literature and market research to find a filter material that meets the stringent requirements for the process
- Patent, literature and market research to find possible uses for tyre oil and their corresponding net profits
- Patent, literature and market research to find possible uses for purified cooking fat as a raw material and their corresponding net profits

Feasibility study for a latent thermal storage unit

Particle detection in foodstuff

Market prices for textile chemistry intermediates

DeNOx/SCR-catalyst market

Marketing of new environmental technology products

Due diligence for several company takeovers

Intellectual property management

Naturopathy

Languages

Besides German:

Croatian/Serbian: Native speaker

• English: Business fluent

• Italian: Fair.

• Sourcing of available PCM materials

- Calculation of unit cost
- Patent, literature and market research to find applicable detection techniques
- Calculation of unit cost

 Web research to find sources for pricing information which the customer could use himself

- Market research for most important producers, product types and prices, applications
- Articles, direct mail copy and internet text for the marketing campaigns of technological products
- Research for market data for the companie's individual products: Competitors, (future) uses, substitution risks
- Suggestions for additional market niches and product developments

Search for potential buyers for several patents on chemical synthesis:

- Literature and patent research
- Identification of potential applications
- Design of prospectus materials
- Contact with several potential buyers to get feedback.
- PSUR researches for several homeopathic preparations and other naturally healing ingredients