

ENCYCLOPAEDIA OF HYDROCARBONS



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ENCYCLOPAEDIA OF HYDROCARBONS

VOLUME II

REFINING
AND PETROCHEMICALS

SCIENTIFIC CO-ORDINATION
CARLO GIAVARINI, FERRUCCIO TRIFIRÒ

INDEX OF VOLUME II

REFINING AND PETROCHEMICALS

1 – OIL REFINING INDUSTRY: GENERAL ASPECTS

CARLO GIAVARINI

1.1 – STRUCTURES AND SCHEMES	3
1.1.1 – The aims of refining	3
1.1.2 – Historical development of the refining industry	3
1.1.3 – Refining schemes	7
1.1.4 – The structure and complexity of refineries	14
1.1.5 – Utilities	17
1.1.6 – Off sites	22
1.1.7 – Operating procedures	23

1.2 – THE PRODUCTS OF REFINING	25
--------------------------------	----

IORELLA IOBBI

1.2.1 – Introduction	25
1.2.2 – Liquefied petroleum gas	26
1.2.3 – Gasolines	27
1.2.4 – Hydrocarbon solvents	30
1.2.5 – Kerosenes	31
1.2.6 – Gas oils	35
1.2.7 – Fuel oils	38

ALESSANDRO BELLI

1.2.8 – The petroleum waxes	41
-----------------------------	----

RICCARDO MAIONE

1.2.9 – Lubricants	44
1.2.10 – Bitumens	49

MICHELANGELO DI LUOZZO

1.3 – THE HYDROGEN CYCLE	59
1.3.1 – Introduction	59
1.3.2 – Hydrogen production in refineries	59
1.3.3 – Hydrogen distribution	66

1.3.4 – Optimization of hydrogen management in refineries	67
1.3.5 – Hydrogen recovery systems	68

2 – DISTILLATION PROCESSES

DAVID BLUCK

2.1 – FUNDAMENTALS	73
2.1.1 – The nature of crude oil	73
2.1.2 – Petroleum fraction characterization	74
2.1.3 – Simulation of crude oil distillation column	78
2.1.4 – Mathematical modelling of distillation columns	82
2.1.5 – Solving the MESH equations	83
2.1.6 – Condensers and reboilers	84
2.1.7 – Design specifications	85
2.1.8 – Solving the MESH equations for the fully equipped distillation column	85
2.1.9 – Pumparounds	86
2.1.10 – Side-strippers	87

PAOLO RICCI, ROMOLO MONTANARI

2.2 – ATMOSPHERIC DISTILLATION OF CRUDE OIL	89
2.2.1 – Desalination	91
2.2.2 – Vaporization	93
2.2.3 – Fractionating	95
2.2.4 – Stripping and stabilization	98
2.2.5 – Problems of corrosion and materials	99
2.2.6 – Operating variables	100

PAOLO RICCI, ROMOLO MONTANARI

2.3 – VACUUM DISTILLATION OF ATMOSPHERIC RESIDUES	105
2.3.1 – Vacuum distillation purposes	105
2.3.2 – Operating variables	106
2.3.3 – Vacuum generation	108
2.3.4 – Processes	109
2.3.5 – Features of the contact devices	110
2.3.6 – Problems of corrosion and materials	110

3 – PROCESSES RELATED TO ENVIRONMENTAL ISSUES

CARLO GIAVARINI

3.1 – HYDROTREATING	115
3.1.1 – Introduction	115
3.1.2 – Evolution and diffusion of hydrotreating processes	115
3.1.3 – Chemistry and thermodynamics of the process	117
3.1.4 – Catalysts	122

3.1.5 – Kinetics and reaction mechanisms	125
3.1.6 – Processes	125
3.1.7 – Operating variables	129
3.1.8 – Other hydrotreating processes	132
JEAN-PIERRE BALLAGUET, CÉCILE BARRÈRE-TRICCA	
3.2 – SULPHUR CYCLE	137
3.2.1 – Introduction	137
3.2.2 – H ₂ S recovery processes	138
3.2.3 – The Claus process	145
3.2.4 – Tail gas treatment	152
3.2.5 – Safety and environmental issues	158
4 – PROCESSES TO IMPROVE THE QUALITIES OF DISTILLATES	
MARGARET STINE	
4.1 – CATALYTIC REFORMING	163
4.1.1 – Introduction	163
4.1.2 – General process description	163
4.1.3 – Process chemistry and catalysts	164
4.1.4 – Process variables	165
4.1.5 – Industrial technologies	166
MARGARET STINE	
4.2 – ISOMERIZATION	171
4.2.1 – Introduction	171
4.2.2 – C ₅ /C ₆ isomerization: general aspects	171
4.2.3 – C ₅ /C ₆ isomerization processes	173
4.2.4 – Molecular sieve technologies for separation and recycle	175
4.2.5 – C ₄ isomerization	177
CARLO GIAVARINI	
4.3 – ALKYLATION	181
4.3.1 – Introduction	181
4.3.2 – Process chemistry and thermodynamics	181
4.3.3 – Process kinetics	183
4.3.4 – Catalysts and reaction conditions	183
4.3.5 – Sulphuric acid alkylation processes	185
4.3.6 – Fluoridic acid alkylation processes	187
4.3.7 – Processes with solid acid catalysts	189
4.3.8 – Hazards and corrosion problems	190
4.3.9 – Process and operating variables	191
MARCO DI GIROLAMO, DOMENICO SANFILIPPO	
4.4 – ETHERIFICATION	193
4.4.1 – Introduction	193
4.4.2 – Aspects related to use of oxygenates in fuel formulation	194
4.4.3 – Chemistry and thermodynamics	197

4.4.4 – Catalysts	200
4.4.5 – Kinetics	202
4.4.6 – Processes	204

5 – THERMAL CONVERSION PROCESSES

BHARAT B. BANSAL, JOSEPH A. FRUCHTBAUM, ALDRICH H. NORTHUP, RAO UPPALA

5.1 – COKING	213
5.1.1 – Introduction	213
5.1.2 – Evolution of the coking process and its role in the refinery	213
5.1.3 – Process chemistry	215
5.1.4 – Coking processes	216
5.1.5 – Process variables	222
5.1.6 – Support process operations	226

DAVID BOSWORTH

5.2 – VISBREAKING	229
5.2.1 – Introduction	229
5.2.2 – Process evolution	230
5.2.3 – Chemistry, thermodynamics and kinetics	232
5.2.4 – Processes	234
5.2.5 – Operating variables	237

DAVID BOSWORTH

5.3 – THERMAL CRACKING	239
5.3.1 – Introduction	239
5.3.2 – Process evolution	240
5.3.3 – Chemistry, thermodynamics and kinetics	241
5.3.4 – Processes	242

6 – CATALYTIC CONVERSION PROCESSES

6.1 – CATALYTIC CRACKING	247
--------------------------	-----

CARLO GIAVARINI

6.1.1 – Principles and development	247
------------------------------------	-----

MARK HOUDEK

6.1.2 – Industrial technologies	263
---------------------------------	-----

ARTHUR J. DAHLBERG, UJJAL K. MUKHERJEE

6.2 – HYDROCRACKING	273
6.2.1 – Introduction	273
6.2.2 – Evolution of hydrocracking	274
6.2.3 – Hydrocracking chemistry	277
6.2.4 – Kinetics	279
6.2.5 – Catalysts	281
6.2.6 – Processes	284
6.2.7 – Operating variables	294

7 – DEEP CONVERSION OF RESIDUES

RAY FLOYD	
7.1 – DEASPHALTING	301
7.1.1 – Introduction	301
7.1.2 – Evolution of deasphalting	301
7.1.3 – Basic principles of solvent deasphalting	302
7.1.4 – Deasphalting processes	303
7.1.5 – Operating variables	305
7.1.6 – Product uses	306
7.2 – THE HYDROCONVERSION OF RESIDUES	309
CARLO GIAVARINI	
7.2.1 – Background and basics	309
AVINASH GUPTA, DAVID BROSSARD	
7.2.2 – LC-Fining process	314
GUIDO COLLODI, DOMENICO SANFILIPPO	
7.3 – GASIFICATION	325
7.3.1 – Introduction	325
7.3.2 – Rudiments of the gasification process	326
7.3.3 – Gasification processes	329
7.3.4 – Applications of synthesis gas (syngas)	334
7.3.5 – Integration of gasification in the refinery cycle	336
7.3.6 – Environmental aspects	336
7.3.7 – Commercial aspects	338

8 – LUBRICATING OIL MANUFACTURE

ALESSANDRO BELLI	
8.1 – GENERAL ASPECTS AND PROCESSING	341
8.1.1 – Lubricant base oils	342
8.1.2 – Developments in lubricant base oils processing	343
ALESSANDRO BELLI	
8.2 – TECHNOLOGICAL ASPECTS	351
8.2.1 – Base oil production technologies	351
8.2.2 – Blending	365

9 – SAFETY AND ENVIRONMENTAL PROTECTION IN THE REFINING INDUSTRY

DOMENICO BARONE, ALBERTO GABRIELLI, GIUSEPPE RUSSO	
9.1 – SAFETY MANAGEMENT IN REFINERIES	369
9.1.1 – Introduction	369

9.1.2 – Principles of evaluation and mitigation of the risks	373
9.1.3 – Safety management systems	382
9.1.4 – Safety technologies	386
GIUSEPPE IORIO	
9.2 – ENVIRONMENTAL MANAGEMENT IN REFINERIES	393
9.2.1 – Introduction	393
9.2.2 – Environmental management system	394
9.2.3 – Management of emissions into the atmosphere	395
9.2.4 – Management of water discharges	398
9.2.5 – Waste management	400
9.2.6 – Management of raw materials, finished products and energy	401
9.2.7 – Monitoring	402
10 – BULK PRODUCTS AND PRODUCTION LINES IN THE PETROCHEMICAL INDUSTRY	
ITALO PASQUON, PIO FORZATTI	
10.1 – THE PETROCHEMICAL INDUSTRY	407
10.1.1 – The development of the petrochemical industry	407
10.1.2 – Raw materials and base products	416
10.1.3 – Production cycles	424
10.2 – NATURAL GAS UPGRADING	455
GIANNI GIROTTI, FRANCO RIVETTI	
10.2.1 – Petrochemical intermediates from natural gas	455
JIM M. ANDERSEN	
10.2.2 – Selected technologies for natural gas upgrading	463
IB DYBKJÆR, THOMAS ROSTRUP-NIELSEN, KIM AASBERG-PETERSEN	
10.3 – SYNTHESIS GAS AND HYDROGEN	469
10.3.1 – Gas conversion technologies	469
10.3.2 – Hydrogen technology	489
10.4 – METHANOL, DIMETHYL ETHER, AMMONIA, UREA	501
IB DYBKJÆR, TORBEN NØRGAARD, JENS PERREGAARD, FINN JOENSEN, HALDOR TOPSØE	
10.4.1 – Methanol technologies	501
10.4.2 – Dimethyl ether technologies	511
10.4.3 – Ammonia technologies	514
DOMENICO SANFILIPPO, GIAMPIERO TESTA	
10.4.4 – Urea technologies	544
SANJEEV KAPUR	
10.5 – ETHYLENE AND PROPYLENE	551
10.5.1 – Ethylene	551
10.5.2 – Propylene	577

10.6 – AROMATICS	591
VLADAS ZUKAUSKAS	
10.6.1 – Aromatics production and use	591
CARLO PEREGO	
10.6.2 – Aromatic intermediates in petrochemical industry	606

11 – SYNTHESIS OF INTERMEDIATES FOR THE PETROCHEMICAL INDUSTRY

11.1 – OXIDATION PROCESSES	617
FABRIZIO CAVANI, GABRIELE CENTI	
11.1.1 – Gas phase oxidation processes	617
PHILIPPE ARPENTINIER	
11.1.2 – Oxidation processes in liquid phase with oxygen	636
MARIO G. CLERICI, MARCO RICCI, FRANCO RIVETTI	
11.1.3 – Oxidation processes with hydrogen peroxide and hydroperoxides	661
DOMENICO SANFILIPPO, IVANO MIRACCA, FERRUCCIO TRIFIRÒ	
11.2 – DEHYDROGENATION PROCESSES	687
11.2.1 – Dehydrogenation of light paraffin (2-5 carbon atoms)	687
11.2.2 – Dehydrogenation of heavy paraffins	696
11.2.3 – Dehydrogenation of ethyl benzene	697
11.2.4 – Future developments	697
SIGMUND M. CSICSERY	
11.3 – ACID OR BASE CATALYSED PROCESSES	701
11.3.1 – Heterogeneous catalysis	701
11.3.2 – Selected catalytic processes based on acid or base catalysis	705
11.3.3 – Conclusions and challenges	717
FAUSTO CALDERAZZO	
11.4 – HOMOGENEOUS CATALYSIS WITH CARBON MONOXIDE IN CARBON-CARBON BOND FORMING PROCESSES	723
11.4.1 – Properties and reactivity of carbon monoxide	723
11.4.2 – Metal carbonyls and their derivatives: synthesis and structure	724
11.4.3 – Reactivity of metal carbonyls	726
11.4.4 – Catalytic reactions of carbon monoxide	727
11.4.5 – Conclusions	733

12 – POLYMERIC MATERIALS

FRANCESCO CIARDELLI	
12.1 – INTRODUCTION TO POLYMERIC MATERIALS	741
12.1.1 – Historical background	741
12.1.2 – Molecular structure	744
12.1.3 – The spatial dimension	747

12.1.4 – Macromolecular synthesis and chemical modification processes	750
12.1.5 – Molecular masses	752
12.1.6 – Structure and properties	753
12.1.7 – Applications	756
ENRICO ALBIZZATI	
12.2 – POLYOLEFINS	759
12.2.1 – Introduction	759
12.2.2 – Catalytic systems for the polymerization of olefins	760
12.2.3 – Properties, structure and applications of polyolefins	770
12.2.4 – Production processes	778
GIAN TOMMASO VIOLA, FABIO BACCHELLI, AUGUSTO FABBRI	
12.3 – ELASTOMERS	789
12.3.1 – Introduction	789
12.3.2 – Elasticity of rubber	790
12.3.3 – Rheology of unvulcanized elastomers	792
12.3.4 – The processing of rubber	794
12.3.5 – Polyisoprene	801
12.3.6 – Polybutadiene	806
12.3.7 – Styrene-butadiene copolymers	811
12.3.8 – Ethylene-propylene copolymers	814
12.3.9 – Isobutene-isoprene copolymers	818
12.3.10 – Acrylonitrile-butadiene copolymers	821
12.3.11 – Polychloroprene	823
12.3.12 – Thermoplastic elastomers	825
12.3.13 – Specialty elastomers	830
LEONARDO CASTELLANI, ALDO LONGO, FRANCESCO PASQUALI	
12.4 – THERMOPLASTIC STYRENIC POLYMERS	837
12.4.1 – Introduction	837
12.4.2 – Chemistry of polymerization	838
12.4.3 – Development of industrial processes	843
12.4.4 – Structure and properties	847
12.4.5 – Structure and properties of random copolymers of styrene	851
12.4.6 – Structure and properties of rubber-toughened styrenic materials	852
12.4.7 – Main processing technologies	856
12.4.8 – The market	860
GRAZIANO VIDOTTO	
12.5 – POLYVINYL CHLORIDE	863
12.5.1 – Introduction	863
12.5.2 – Industrial production of PVC	865
12.5.3 – Suspension PVC products, transformation into articles and application sectors	873
12.5.4 – Compatibility and environmental sustainability of PVC-based products	878
FRANCESCO PILATI, MASSIMO MESSORI, PAOLA FABBRI, MAURIZIO TOSELLI	
12.6 – ENGINEERING PLASTICS	885
12.6.1 – General aspects	885

12.6.2 – Polyamides	890
12.6.3 – Aliphatic-aromatic polyesters	893
12.6.4 – Polycarbonates	897
12.6.5 – Acetal resins	899
12.6.6 – Polyphenylene ethers	902
12.6.7 – Polyarylates	904
12.6.8 – Polysulphones	906
12.6.9 – Polyimides	909
12.6.10 – Aromatic polysulphides	912
12.6.11 – Polyetheretherketones	914

LUIGI TROSSARELLI, VALENTINA BRUNELLA

12.7 – SYNTHETIC FIBRES	917
12.7.1 – Introduction	917
12.7.2 – Polyamide fibres	918
12.7.3 – Polyester fibres	922
12.7.4 – Polyvinyl fibres	924
12.7.5 – Polyolefin fibres	926
12.7.6 – Polyurethane fibres	927
12.7.7 – Polyacetal fibres	928
12.7.8 – Carbon fibres	928
12.7.9 – Synthetic fibres for medical use	928
12.7.10 – Microfibres and nanofibres	929

NOTES

UNITS OF MEASUREMENT

The units of measurement generally adopted are those of the *Système International (SI)*, with corresponding multiples and submultiples. Only in particular contexts, typically connected with the petroleum industry, certain non-SI units of current use have been maintained.

Main units of measurement adopted

ampere	A	henry	H	pascal	Pa
angstrom	Å	hertz	Hz	poise	P
atomic mass unit	u	horse-power	hp	pound	lb
bar	bar	hour	h	pounds per square inch	psi
barrel	bbl	inch	" (in)	radian	rad
becquerel	Bq	joule	J	second (angle)	"
British thermal unit	Btu	kelvin	K	second (time)	s
calorie	cal	kilogram	kg	siemens	S
candela	cd	kilowatt-hour	kWh	sievert	Sv
coulomb	C	litre	l	standard cubic foot	scf or SCF or sft ³
darcy	D	lumen	lm	steradian	sr
day	d	lux	lx	stock tank barrel	stb
decibel	dB	metre	m	stokes	St
degree Celsius	°C	square metre	m ²	tesla	T
degree Fahrenheit	°F	cubic metre	m ³	tonne	t
degree (sexagesimal)	°	minute (angle)	'	tonnes of oil equivalent	toe
electron volt	eV	minute (time)	min	volt	V
farad	F	mole	mol	watt	W
foot	' (ft)	newton	N	weber	Wb
gram	g	nit	nt	yard	yd
gray	Gy	ohm	Ω	year	yr
hectare	ha	parts per million	ppm		

TERMINOLOGY AND SPELLING

In the sectors of petroleum engineering and chemistry, of the petrochemical industry and of the earth sciences, specific terms, acronyms and expressions are frequently used. The criterion adopted in this work is based on their frequency of use, i.e. given two possible terms, the more common one has been used.

British spelling, according to the most authoritative reference works, has been adopted.

CHEMICAL NOMENCLATURE

In the nomenclature of simple compounds, the rules of IUPAC (International Union of Pure and Applied Chemistry) have been adopted as far as possible, traditional names being limited to the cases admitted by IUPAC. When there are two or more names admitted, the commonest one is adopted.

Two principal exceptions to the above rule have been applied in this work:

- For organic compounds used in the petrochemical industry, the name adopted is that listed in: WELLS G.M. (1999) *Handbook of petrochemicals and processes*, Aldershot, Ashgate; Brookfield (VT), Gower.
- The British English spelling of sulphur and sulphur containing compounds is adopted.

TRANSLITERATIONS

In writing names belonging to other languages with an alphabet other than the Latin alphabet, the *Romanization Tables* compiled by the Library of Congress of Washington have been applied, introducing however certain modifications intended to reduce to a minimum the number of diacritical marks, and – in particular in the case of Arabic and Persian – adopting a number of transliterations by now accepted in local and international usage.

Opposite page:

The ENI refinery in Sannazzaro, near Pavia. With a processing capacity of 10 million t/yr of crude oil, the refinery boasts one of the highest levels of complexity as well as one of the highest conversion capacities in Europe.

To respond to market demands and ever-increasing environmental requirements, the plant produces high-quality, low environmental impact products. Thanks to its efficient safety management systems and environmental management systems, the refinery has obtained the International Certification ISO 14001.

