

# Feature Articles

## HISTORICAL CHEMISTRY

### Chapter

2	Classical Ideas About Matter	43
3	Discovery of Element 43	81
4	The Noble Decade	114
9	The Case of Combustion	302
11	Chemistry's First Law	376
13	The Riddle of Electrolysis	444
18	Fixing the Nitrogen Problem	596
21	An Unexpected Finding	700
22	The Beginnings of Organic Chemistry	715
23	Charles Brown and Blood Transfusions	762

### extension

1	A Broken Rule: Chemical Reactions of the Noble Gases	HC6MTXX
3	Modern Alchemy	HC6ATMX
21	Glenn Seaborg	HC6NUCX
23	Unraveling the Mystery of DNA	HC6BIOX



## CROSS-DISCIPLINARY CONNECTION

### Chapter

1	Secrets of the Cremona Violins	15
2	Some Handy Comparisons of Units	35
12	Artificial Blood	417
14	Acid Water—A Hidden Menace	477
	It's a Bitter Pill	484
15	Liming Streams	510
18	Blood Buffers	609
21	Quarks	682

### extension

4	Spintronics	HC6ARRX
5	Essential Elements	HC6PERX
7	Smell—A Chemical Sense	HC6FRMX
10	Cloud Seeding	HC6STMX
13	Minerals	HC6IONX
16	Free Energy and the Body	HC6NRGX
15	Buffers in the Blood	HC6ABTX
18	Limestone Caves	HC6EQUX
19	Oxidation-Reduction and Photosynthesis	HC6OXRX

### extension

Go to [go.hrw.com](http://go.hrw.com) for full-length articles.



## CAREERS in Chemistry



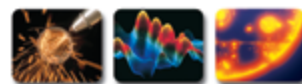
### Chapter

3	Physical Chemist	70
5	Materials Scientist	145
6	Computational Chemist	204
7	Pharmacist	222
9	Chemical Technician	300
12	Environmental Chemist	408
15	Analytical Chemist	516
22	Petroleum Engineer	720
23	Forensic Chemist	774

### extension

20	Chemical Engineer	HC6ELEX
----	-------------------	---------

## Chemistry in Action



### Chapter

1	Superconductors	18
2	Breaking Up Is Easy to Do	32
4	Fireflies	102
6	Ultrasonic Toxic-Waste Destroyer	180
7	Mass Spectrometry: Identifying Molecules	236
8	Carbon Monoxide Catalyst	275
	Fluoridation and Tooth Decay	283
	Combustion Synthesis	288
10	Surface Melting	346
11	The Gas Laws and Scuba Diving	368
	Automobile Air Bags	380
13	Water Purification by Reverse Osmosis	453
16	Self-Heating Meals	545
	Diamonds Are Forever?	549
17	Explosives	572
	Catalytic Converters	579
19	Photochromic Lenses	634
	Skunk-Spray Remedy	636
20	Fuel-Cell Cars	666
	Sodium Production by Electrolysis	671
22	Carbon Allotropes	725

### extension

2	Roadside Pollution Detector	HC6MEAX
6	Nanoscale Computers	HC6BNDX
8	How Is Our Public Water Treated?	HC6RXNX
9	Air Bags and Stoichiometry	HC6STCX
10	Phase-Change Materials	HC6STMX
12	Surfactants: Molecules with Two Faces	HC6SLNX
14	Unclog That Drain	HC6ACDX
17	Monitoring Reaction Kinetics with Ultraviolet-Visible Spectroscopy	HC6RXKX
22	Synthetic Diamonds	HC6ORGX
	High-Barrier Plastics	HC6ORGX