95/01213 Spiral classifiers for preparation of coal fines
Gaertner, H. G. *Glueckauf,* 1994, 130, (5), 332-336. (In German)
Spiral classifiers have been in use in the USA for the last century for the preparation of anthracite. These classifiers operated dry and utilized the different coefficients of friction of anthracite and enclosing rock for separation. Tests revealed that fine-grained and specifically heavy materials required relatively large gradients, whereas more coarse-grained and light materials can be classified better in flatter spiral apparatus. It was recognized that for coal preparation, it was necessary to switch from the conventional ellipse shape of the spiral profile to flatter and wider spirals to obtain substantially greater scope for separation of coal middlings. Further development in the design of the spiral classifiers, which produced substantially higher specific outputs with clearly better separation results, led to wider use.

95/01214 Study on the coal desulfurization by dilute alkali/acid treatment and its mechanism
Zhao, J. C. *et al., Fuel Sci. Technol. Int.,* 1994, 12, (9), 1183-1191.
Describes the study of the desulphurization of high-sulphur coal by dilute alkali/acid treatment.

95/01215 Supercritical extraction of Daliuta coal with toluene and its mixtures
Wang, A. *et al., Ranliao Huaxue Xuebao,* 1994, 22, (2), 209-214. (In Chinese)
Supercritical extraction of Daliuta 2 coal from the Shenfu coalfield with toluene and its mixtures was investigated in a semicontinuous apparatus in terms of extract formation rate profiles. Results showed that the addition of pyridine, THF or m-cresol in toluene resulted in a considerable increase in extract formation rate which is, however, not so great as that in the case of adding tetralin.

95/01216 Targeting single coal macerals with density gradient centrifugation experiments
Crelling, J. C. *Prepr. Pap.-Am. Chem. Soc., Div. Fuel Chem.,* 1994, 39, (1), 209-213.
Describes the separation of single coal macerals by density gradient centrifugation.

95/01217 Technology research and development, and project finding of alternative energies. III. Upgrading technology of middle and low class coal
Takemoto, K. *Enerugi, Shigen,* 1994, 15, (5), 442-449. (In Japanese)

95/01218 Trace elements in Illinois coals before and after conventional coal preparation
Demir, L. *et al., Prepr. Pap.-Am. Chem. Soc., Div. Fuel Chem.,* 1994, 39, (2), 530-536.
A database on trace elements in channel samples of Illinois coals was used to show the degree of reduction of key environmental elements in 34 as-shipped coals from Illinois mines collected and analyzed for this study.

Transport, Storage

95/01219 Modeling the spontaneous ignition of coal stockpiles
Salinger, A. G. *et al., AIChE J.,* 1994, 40, (6), 991-1004.
The paper discusses the spontaneous ignition of coal stockpiles which is a serious economic and safety problem. This phenomenon is analyzed using the approach of modern reaction engineering, which is made challenging by the nonlinear interactions of chemical reaction, heat transfer, and buoyancy-driven flows within and around the stockpiles. A model developed represents reaction and transport within a realistically-shaped stockpile and transport and flow in the surrounding air.

Economics, Business, Marketing, Policy

95/01220 Asian market continues to grow rapidly
Queensland Government Mining J., Dec. 1994, 95, p. 8.
Reports that Japanese powerbroker Eiichi Yugeta, President of the Centre for Coal Utilisation in Japan, confirmed energy demand in the Asian region would continue to increase at a rapid pace into the next century.

95/01221 BHPAC spends big on rehabilitation
Queensland Government Mining J., Dec. 1994, 95, p. 11.
Reports that BHP Australia Coal (BHPAC) has begun a five-year series of research projects into mine rehabilitation costing in excess of $5m.

95/01222 Clean coal technology: At the crossroads of opportunity
Wattley, G. G. *AMC Journal,* Nov. 1994, 80, (11), 12-13.
The author discusses the U.S. clean coal technology programme.

95/01223 Mining of the future: Economical and environmentally friendly
Keiser, D. *AMC Journal,* Nov. 1994, 80, (11), 14-15.
Describes the National Partnership on Mining and Minerals Technology which is a research and development collaboration of the mining and minerals processing industry in the US with the Department of the Interior, the Department of Energy and its laboratories, and universities. Other agencies, such as the Environmental Protection Agency (EPA), National Institute of Standards and Technology and the Department of Defense, will also be involved as appropriate.

95/01224 Natural born heaters!
Brind, J. *Solid Fuel & Fireplaces,* Feb. 1995, 11, 14.
The author takes a look at a new red ovoid. A new ovoid made from Welsh anthractie, with a secret ingredient which reduces ash, is being marketed by Ango. The ovoid, called Natura, is manufactured by Ryan Mining Ltd at its Taybrite Briquetting Plant using the traditional Taybrite Shape – sometimes compared to a baby's bottom. But that is where the similarities with the rest of the Taybrite product range end. This is a state of the art briquette, with more oomph than some and harder than most. It's also red!

95/01225 New mine is a big boost for Queensland
Queensland Government Mining J., Dec. 1994, 95, 32-33.
Reports on the official opening of the Ensham Coal Mine, the newest mine in the Bowen Basin by Queensland premier Wayne Goss. Joint venture partners, Idemitsu Kosam of Japan and Lucky-Goldstar of Korea, have already begun production and export of steaming coal at a rate of 900,000 tonnes a year. The second stage production at Ensham is expected to be lifted to 1.6 million tonnes next year to meet increasing demand.

95/01226 The Queensland Coal Board
Queensland Government Mining J., Dec. 1994, 95, 24-30.
A listing of Queensland coal statistics for the 1993/94 financial year.

95/01227 R&D 'crucial to the future of the coal industry'
Queensland Government Mining J., Dec. 1994, 95, p. 9.
The success of coal will be dependent on the success of its research and development strategy, according to ICCR (International Conference on Coal Research) vice-chairman Walter Ostermann.

95/01228 Research aids environment and economy
Queensland Government Mining J., Dec. 1994, 95, 6-7.
A report on the 10th International Conference on Coal Research held in October 1994 in Brisbane, Queensland, Australia.

95/01229 RJB mining
Brind, J. *Solid Fuel & Fireplaces,* Feb. 1995, 7-10.
Jonathan Brind talks to Richard Budge of RJB (Mining) Ltd. On privatisation RJB was handed 17 pits, 14 opencast sites, and 15 disposal points and its has leased and licensed Calverton, Clipstone, Ellington, Rossington and Thorne. The company also works open cast sites for Celtic Energy and Mining (Scotland).

95/01230 Several subjects for coal utilization technology and its further development
Nomura, M. *Kagaku to Kogyo (Osaka),* 1994, 68, (5), 218-224. (In Japanese)
Discusses the problems in coal utilization technology, and progress of coal science.

95/01231 Strategic directions for mining technology development
Crimes, P. B. *AMC Journal,* Nov. 1994, 80, (11), p. 4.
A short article on environmental impact issues in the U.S. mining industry.

Derived Solid Fuels

95/01232 Chemistry in the production and utilization of needle coke
Mochida, I. *et al., Chem. Phys. Carbon,* 1994, 24, 111-112.
Discusses the use of needle coke in graphite electrodes, electrode manufacture, commercial production of needle coke, and needle coke properties and structure.