

COLOR PLATE LEGENDS

Page I above: Colony of bacteria, *Bacillus subtilis*, spreading on an agar plate (Matsushita and Fujikawa, 1990). The growth displays a certain similarity to the DLA model, since the spread of the bacteria is governed by the diffusion of the nutrients that they absorb (photograph kindly provided by M. Matsushita, Chuo University, Tokyo).

Page I below: Sliding spark forming at the surface of a dielectric (S. Larigaldie in *Fractal Forms*, edited by E. Guyon and H.E. Stanley, Elsevier/North-Holland and Palais de la Découverte, 1991).

Page II above: Electrolytic deposit of copper, obtained by electrolysis in a thin layer of copper sulphate solution situated between two glass plates. As one of these plates has had its surface treated, growth occurs there (photograph kindly provided by Vincent Fleury, Laboratoire PMC, Ecole Polytechnique).

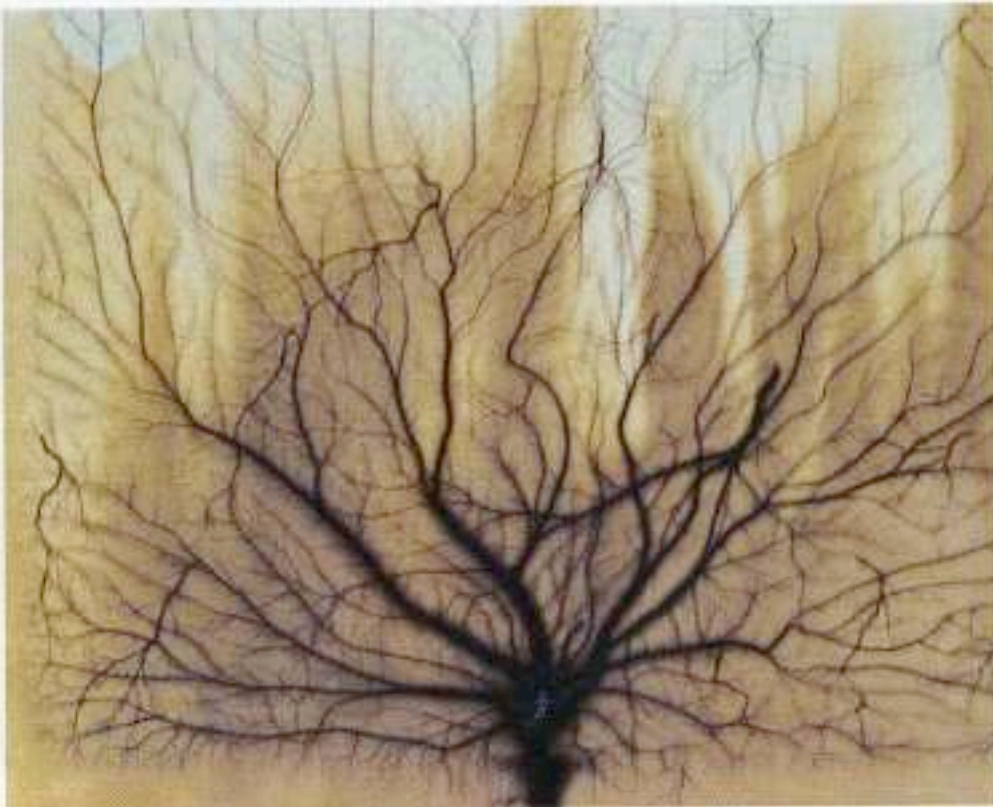
Page II below: Enlargement of the box indicated in the photograph above, demonstrating the self-similar character of the deposit. The fractal dimension was found by V. Fleury to be $D = 1.76$.

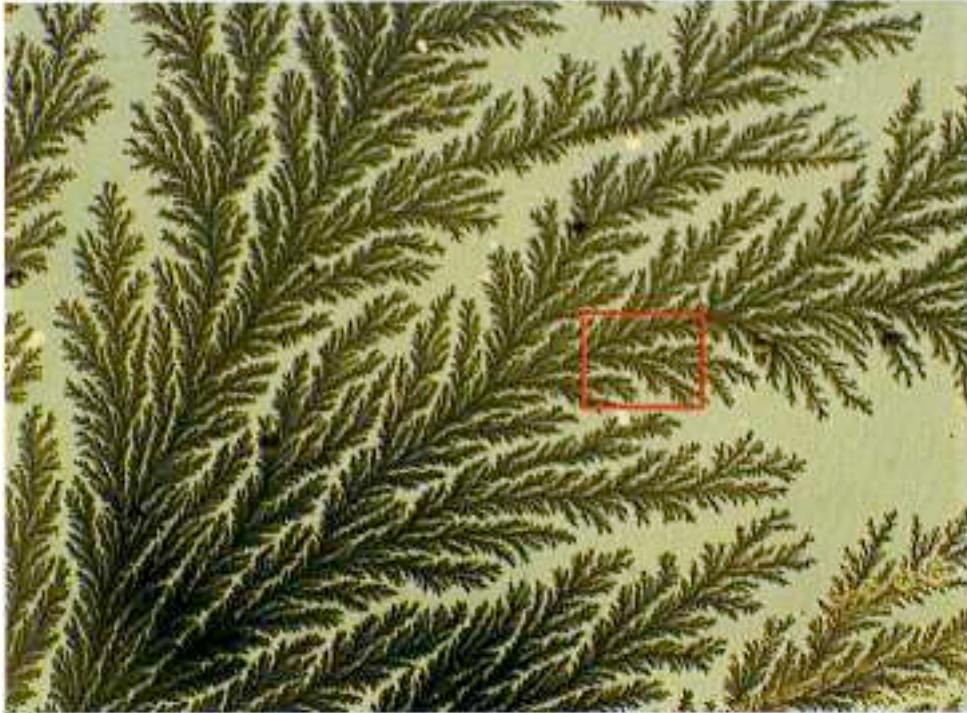
Page III above: Electrolytic deposit of copper showing a similar structure to page II, but using untreated glass plates. Growth occurs throughout the gap. The object shown here has a broadly self-affine structure (photograph kindly provided by Vincent Fleury).

Page III below: Mould of a three-dimensional dissolved structure produced by injecting water under pressure into a cylinder of plaster (through a hole pierced through the center of the cylinder, as can be clearly seen from the mould) (photograph kindly provided by Roland Lenormand and Gérard Daccord, I.F.P., Rueil-Malmaison).

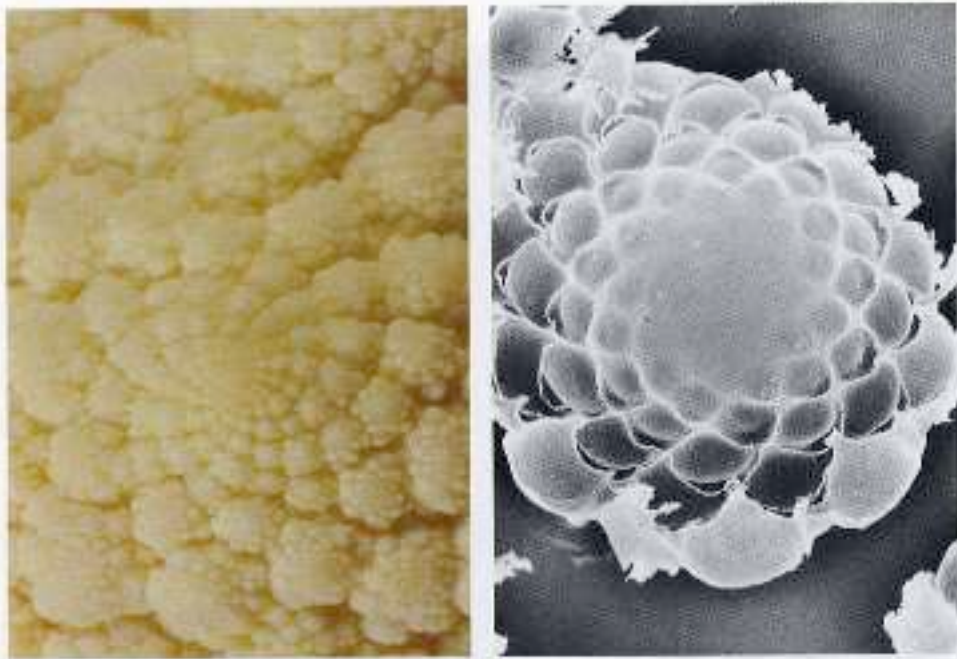
Page IV above: On the left, a photograph of a cauliflower (Broccoli romanesco), displaying an almost deterministic fractal structure. On the right, enlargement by electron microscope showing the smallest scale at which a "pineapple" structure may be observed (photograph kindly provided by François Grey, Risø National Laboratory, Denmark).

Page IV below: Photograph taken from the landsat satellite of Tibetan mountain ranges, showing the horizontal limit of snowfall, and thus displaying a section of a particularly rough natural surface. The image resembles a dendritic growth structure (P. Taponnier, in *Fractal Forms*, edited by E. Guyon and H.E. Stanley, Elsevier/North-Holland and Palais de la Découverte, 1991).









Bibliography

- M* General books dealing with mathematical aspects .
PC General books dealing with physical and chemical aspects.
CR Proceedings of conferences and schools.
R Review articles.
f Simulation films.

- PC* ABRAHAM R.H. & SHAW C.D., 1983 — *Dynamics : the Geometry of behavior*, Aerial Press, Santa Cruz.
 AHARONY A., 1985 — Anomalous diffusion on percolating clusters. *in*: PYNN & SKJELTORP, p. 289.
 AHARONY A., 1987 — Multifractality on percolation clusters. *in*: PYNN & RISTE, p. 163.
 ALEXANDER S., 1989 — Vibrations of fractals and scattering of light from aerogels, *Phys. Rev., B* **40**, 7953.
 ALEXANDER S. & ORBACH R., 1982 — Density of states on fractals: « fractons », *J. Phys. Paris Lett.*, **43**, L625.
 ALLAIN C. & JOUHIER B., 1983 — Simulation cinétique du phénomène d'agrégation, *J. Phys. Paris Lett.*, **44**, L421.
- PC* AVNIR D., Editeur, 1989 — *The Fractal Approach to the Chemistry of Disordered Systems, Polymers, Colloids and Surfaces*, John Wiley and Sons, New-York.
 AXELOS M.A.V. & KOLB M., 1990 — Crosslinked polymers: Experimental evidence for scalar percolation theory, *Phys. Rev. Lett.*, **64**, 1457.
 BADII R., 1989 — Conservation laws and thermodynamical formalism for dissipative dynamical systems, *Rivista del Nuovo Cimento*, **12**, 1.
 BALIAN R. & SCHAEFFER R., 1989 — Scale-invariant matter distribution in the universe, I. Counts in cells, *Astron. Astroph.*, **220**, 1 ; II. Bifractal behaviour, *Astron. Astroph.*, **226**, 373.
- M* BARNSLEY M.F., 1988 — *Fractals everywhere*, Academic Press, Boston.
 BARNSLEY M.F., GERONIMO J.S. & HARRINGTON A.N., 1985 — Condensed Julia sets, with an application to a fractal lattice model hamiltonian, *Trans. Amer. Math. Soc.*, **288**, 537
 BAUMGÄRTNER A. & HO J.-S., 1990 — Crumpling of fluid vesicles, *Phys. Rev., A* **41**, 5747.
 BENGUIGUI L., 1986 — Lattice and continuum percolation transport exponents: experiments in two dimensions, *Phys. Rev., B* **34**, 8176.
 BENZI R., PALADIN G., PARISI G. & VULPIANI A., 1984 — On the multifractal nature of fully developed turbulence and chaotic systems, *J. Phys., A* **17**, 3521.
- PC* BERGE P., POMEAU Y. & VIDAL Ch., 1988 — *L'Ordre dans le Chaos*, Hermann, Paris.
 BERGMAN D., 1989 — Electrical transport properties near a classical conductivity or percolation threshold, *Physica, A* **157**, 72.

- BERGMAN D. & IMRY Y., 1977 — Critical behavior of the complex dielectric constant near the percolation threshold of a heterogeneous material, *Phys. Rev. Lett.*, **39**, 1222.
- BESICOVITCH A.S., 1935 — On the sum of digits of real numbers represented in the diadic system (On sets of fractional dimensions II.), *Mathematische Annalen*, **110**, 321.
- BIRGENEAU R.J. & UEMURA Y.J., 1987 — Spin dynamics in the diluted antiferromagnet $Mn_xZn_{1-x}F_2$, *J. Appl. Phys.*, **61**, 3692.
- BLANCHARD A., 1984 — Complex analytic dynamics on the Riemann sphere, *Bull. Amer. Math. Soc. (NS)*, **11**, 85.
- BLANCHARD A. and ALIMI J.M., 1988 — Practical determination of the spatial correlation function, *Astron. Astrophys.*, **203**, L1.
- CR BOCCARA N. & DAOUD M., 1985 — *Physics of Finely Divided Matter*, Springer Verlag, Heidelberg.
- BOHR T. & RAND D., 1987 — The entropy function for characteristic exponents, *Physica*, **25D**, 387.
- BOUCHAUD E., LAPASSET G. & PLANES J., 1990 — Fractal dimension of fractured surfaces: a universal value?, *Europhys. Lett.*, **13**, 73.
- BOULIGAND G., 1929 — Sur la notion d'ordre de mesure d'un ensemble plan, *Bull. Sc. Math.*, **II-52**, 185.
- BROADBENTS S.R. & HAMMERSLEY J.M., 1957 — Percolation processes I. Crystals and mazes, *Proc. Cambridge Philos. Soc.*, **53**, 629.
- BROLIN H., 1965 — Invariant sets under iteration of rational functions, *Ark. Mat.*, **6**, 103.
- BROWN W.D. & BALL R.C., 1985 — Computer simulation of chemically limited aggregation, *J. Phys.*, *A* **18**, L517.
- R BUNDE A., 1986 — Physics of Fractal Structures, *Adv. Solid State Phys.* **26**, 113.
- BUNDE A., HARDER H. & HAVLIN S., 1986 — Nonuniversality of diffusion exponents in percolation systems, *Phys. Rev.*, *B* **34**, 3540.
- PC BUNDE A. & HAVLIN S., Editeurs 1991 — *Fractals and Disordered Systems*, Springer-Verlag, Berlin.
- BUNDE A., ROMAN E., RUSS S., AHARONY A. & BROOKS HARRIS A., 1992 — Vibrational excitations in percolation: localization and multifractality, *Phys. Rev. Lett.* **69**, 3189.
- CAMOIN C., 1985 — Etude expérimentale de suspensions modèles bidimensionnelles, *Thèse de l'université de Provence*.
- CHACHATY C., KORB J.-P., VAN DER MAAREL J.R.C., BRAS W. & QUINN P., 1991 — Fractal structure of a cross-linked polymer resin: a small-angle x-ray scattering, pulsed field gradient, and paramagnetic relaxation study, *Phys. Rev.*, *B* **44**, 4778.
- CHAPUT F., BOILOT J.P., DAUGER A., DEVREUX F. & DE GEYER A., 1990 — Self-similarity of alumino-silicate aerogels, *J. Non-Cryst. Sol.*, **116**, 133.
- CHARLIER C.V.L., 1922 — How an infinite world may be built up, *Ark. Mat. Astron. Fys.*, **16**, 16.
- CLEMENT E., BAUDET C. & HULIN J.P., 1985 — Multiple scale structure of nonwetting fluid invasion fronts in 3D model porous media, *J. Phys. Lett.*, **46**, L1163.
- CLEMENT E., BAUDET C., GUYON E. & HULIN J.P., 1987 — Invasion front structure in a 3D model porous medium under a hydrostatic pressure gradient, *J. Phys. D : Appl. Phys.*, **20**, 608.
- R CLERC J.P., GIRAUD G., LAUGIER J.M. & LUCK J.M., 1990 — The a.c. electrical conductivity of binary systems, percolation clusters, fractals, and related models, *Adv. in Phys.*, **39**, 191.
- COLEMAN P.H., PIETRONERO L. & SANDERS R.H., 1988 — Absence of any characteristic length in the CfA galaxy catalogue, *Astron. Astrophys.*, **200**, L32.
- COLLET P., LEBOWITZ J.L. & PORZIO A., 1987 — The dimension spectrum of some

- dynamical systems, *J. Stat. Phys.*, **47**, 609.
- CONIGLIO A., 1981 — Thermal phase transition of the dilute s-state Potts and n-vector models at the percolation threshold, *Phys. Rev. Lett.*, **46**, 250.
- CONIGLIO A., 1982 — Cluster structure near percolation threshold, *J. Phys.*, A **15**, 3829 .
- PC COOPER N.G., Editeur 1989 — *From Cardinal to Chaos*, Cambridge University Press.
- COURTENS E., PELOUS J., PHALIPPOU J., VACHER R., & WOIGNIER T., 1988 — Brillouin-scattering measurements of phonon-fracton crossover in silica aerogels, *Phys. Rev. Lett.*, **58**, 128.
- COURTENS E., VACHER R., PELOUS J. & WOIGNIER T., 1988 — Observation of fractons in silica aerogels, *Europhys. Lett.*, **6**, 245.
- R CROQUETTE V., 1982 — Déterminisme et chaos, *Pour la Science*, décembre 1982, p.62.
- CURRY J. & YORKE J.A., 1977 — A transition from Hopf bifurcation to chaos: computer experiment with maps in \mathbb{R}^2 , in *The structure of attractors in dynamical systems*, Springer Notes in Mathematics, **668**, p.48, Springer Verlag.
- DACCORD G. & LENORMAND R., 1987 — Fractal patterns from chemical dissolution, *Nature*, **325**, 41-43.
- DACCORD G., NITTMAN J. & STANLEY H.E., 1986 — Fractal viscous fingers: Experimental results, in *On Growth and Form*, eds. H.E. STANLEY & N. OSTROWSKY, Martinus Nijhoff, Dordrecht, pp. 203-210).
- DAVIDSON D.L., 1989 — Fracture surface roughness as a gauge of fracture toughness: aluminium-particle SiC composites, *J. Mat. Science*, **24**, 681.
- DE ARCANGELIS L., REDNER S. & CONIGLIO A., 1985 — Anomalous voltage distribution of random resistor networks and a new model for the backbone at the percolation threshold, *Phys. Rev.*, B **31**, 4725.
- DE ARCANGELIS L., REDNER S. & CONIGLIO A., 1986 — Multiscaling approach in random resistor and random superconducting networks, *Phys. Rev.*, B **34**, 4656.
- DE ARCANGELIS L. & HERRMANN H.J., 1989 — Scaling and multiscaling laws in random fuse networks, *Phys. Rev.*, B **39**, 2678.
- DE ARCANGELIS L. HANSEN A., HERRMANN H.J. & ROUX S., 1989 — Scaling laws in fracture, *Phys. Rev.*, B **40**, 877.
- R DE GENNES P.G., 1976 — La percolation : un concept unificateur, *La Recherche*, **72**, 919.
- PC DE GENNES P.G., 1979, 1985 — *Scaling Concepts in Polymer Physics*, Cornell Univ. Press, Ithaca, N.Y..
- R DE GENNES P.G. & GUYON E., 1978 — Lois générales pour l'injection d'un fluide dans un milieu poreux aléatoire, *J. Mec.*, **17**, 403.
- DE GENNES P.G., LAFORE P. & MILLOT J.P., 1959 — Amas accidentels dans les solutions solides désordonnées, *J. Phys. Chem. Solids.*, **11**, 105.
- CR DEUTSCHER G., ZALLEN R. & ADLER J., Editeurs 1983 — Percolation structures and Processes, *Ann. Isr. Phys. Soc.*, Vol. 5.
- DEUTSCHER G., KAPITULNIK A. & RAPPAPORT M., 1983 — Percolation in metal-insulator systems, in *Percolation structures and Processes*, eds. DEUTSCHER G., ZALLEN R. & ADLER, J., *Ann. Isr. Phys. Soc.* **5**, 207.
- DE VAUCOULEURS G., 1970 — The case for a hierarchical cosmology, *Science*, **167**, 1203.
- DHAR D., 1977 — Lattices of effectively nonintegral dimensionality, *J. Math. Phys.*, **18**, 577.
- DIMOTAKIS P.E., MIAKE-LYE R.C. & PAPANTONIOU D.A., 1983 — Structure and dynamics of round turbulent jets, *Physics of Fluids*, **26**, 3185.
- ECKHARDT R., 1989 — extrait de « *Nonlinear Science* » D.K. CAMPBELL, p. 235, in *From Cardinal to Chaos*, ed. N.G. COOPER, Cambridge University Press.
- EDEN M., 1961 — , *Proceedings of the 4th Berkeley symposium on mathematical*

- statistics and probabilities*, ed. F. NEYMAN, Université de Californie, Berkeley, **4**, 223.
- EFROS A.L. & SHKLOVSKII B.I., 1976 — Critical behaviour of conductivity and dielectric constant near the metal-non-metal transition threshold, *Phys. Stat. Sol. (b)*, **76**, 475.
- ELAM W.T., WOLF S.A., SPRAGUE J., GUBSER D.V., VAN VECHTEN D., BARZ G.L. & MEAKIN P., 1985 — Fractal aggregates in sputter-deposited NbGe₂ films, *Phys. Rev. Lett.*, **54**, 701.
- ENGLMAN R. & JAEGER Z., Editeurs 1986 — Fragmentation Form and Flow in Fractured Media, *Ann. Isr. Phys. Soc.*, **8**.
- ESSAM J.W., 1972 — Percolation and cluster size, in *Phase transitions and critical phenomena*, vol. **2** p. 197, Academic Press, London.
- R ESSAM J.W., 1980 — Percolation theory, *Rep. Prog. Phys.* **43**, 833.
- EVERTSZ C., 1990 — Self-affine nature of dielectric breakdown model clusters in a cylinder, *Phys. Rev., A* **41**, 1830.
- M FALCONER K.J., 1985 — *The Geometry of Fractal Sets*, Cambridge University Press, Cambridge.
- M FALCONER K.J., 1990 — *Fractal Geometry : Mathematical Foundations and Applications*, John Wiley, New York.
- FAMILY F., 1990 — Dynamic scaling and phase transitions in interface growth, *Physica, A* **168**, 561.
- CR FAMILY F. & LANDAU D.P., Editeurs 1984 — *Kinetics of Aggregation and Gelation*, North-Holland, Amsterdam.
- FATOU P., 1919-1920 — Sur les équations fonctionnelles, *Bull. Soc. Math. France*, **47**, 161 ; **48**, 33 and 208.
- PC FEDER J., 1988 — *Fractals*, Plenum Press, New-York.
- FEIGENBAUM M.J., 1978 — Quantitative universality class of nonlinear transformations, *J. Stat. Phys.*, **19**, 25 ; voir aussi, Universal behavior in nonlinear systems, *Los Alamos Science*, Summer 1980.
- FLEURY V., ROSSO M., CHAZALVIEL J.N. & SAPOVAL B., 1991 — Experimental aspects of dense morphology in copper electrodeposition, *Phys. Rev., A* **44**, 6693.
- PC FLORY P.J., 1971 — *Principles of polymer chemistry*, Cornell University Press, Ithaca, N.Y. ; les articles originaux ont publiés en 1941 dans *J. Am. Chem. Soc.*, **63**, 3083, 3091, 3096.
- FORREST S.R. & WITTEN T.A., 1979 — Long range correlation in smoke aggregates, *J. Phys., A* **12**, L109.
- M FOURNIER D'ALBE E.E., 1907 — *Two new worlds : I. The infra world ; II. The supra world*, Longmans Green, London.
- FRISCH U., SULEM P.-L. & NELKIN M., 1979 — A simple dynamical model of intermittent fully developed turbulence, *J. Fluid Mech.*, **87**, 719.
- FRISCH U. & PARISI G., 1985 — On the singularity structure of fully developed turbulence. in *Turbulence and Predictability in Geophysical Fluid Dynamics and Climate Dynamics*, eds. M. GHIL, R. BENZI & G. PARISI, North-Holland, New York, pp. 84-88).
- GAUTHIER-MANUEL B., GUYON E., ROUX S., GITS S. & LEFAUCHEUX F., 1987 — Critical viscoelastic study of the gelation of silica particles, *J. Phys. (Paris)*, **48**, 869.
- GEFEN Y., AHARONY A. & MANDELBROT B.B., 1983 — Phase transitions in fractals. I. Quasi-linear lattices, *J. Phys. A : Math. Gen.*, **16**, 1267.
- PC GLEICK J., 1987 — *Chaos, making a new science*, Cardinal, Sphere books Ltd, Londres.
- GOUYET J.F., 1988 — Structure of diffusion fronts in systems of interacting particles, *Solid State Ionics*, **28-30**, 72.
- GOUYET J.F., 1990 — Invasion noise during drainage in porous media, *Physica, A* **168**, 581.

- GOUYET J.F., ROSSO M. & SAPOVAL B., 1988 — Fractal structure of diffusion and invasion fronts in 3D lattices through gradient percolation approach, *Phys. Rev., B* **37**, 1832.
- GRASSBERGER P., 1981 — On the Hausdorff dimension of fractal attractors, *J. Stat. Phys.*, **26**, 173.
- R GUYON E., HULIN J.P. & LENORMAND R., 1984 — Application de la percolation à la physique des milieux poreux, *Annales des Mines*, **191**, n°5 & 6, 17.
- HALPERIN B.I., FENG S. & SEN P.N., 1985 — Differences between lattice and continuum percolation transport exponents, *Phys. Rev. Lett.*, **54**, 2391.
- HALSEY T.C., JENSEN M.H., KADANOFF L.P., PROCACCIA I. & SHRAIMAN B., 1986 — Fractal measures and their singularities: The characterization of strange sets, *Phys. Rev., A* **33**, 1141.
- HAUSDORFF F., 1919 — Dimension und äusseres Mass, *Mathematische Annalen*, **79**, 157.
- R HAVLIN S. & BEN-AVRAHAM D., 1987 — Diffusion in disordered media, *Adv. in Phys.*, **36**, 695-79.
- R HAVLIN S. & BUNDE A., 1989 — Probability densities of random walks in random systems, *Physica, D* **38**, 184.
- HAYAKAWA Y., SATO S. & MATSUSHITA M., 1987 — Scaling structure of the growth-probability distribution in diffusion-limited aggregation processes, *Phys. Rev., A* **36**, 1963.
- HENON M., 1976 — A two-dimensional mapping with a strange attractor, *Communications in Mathematical Physics*, **50**, 69.
- HENTSCHEL H.G.E. & PROCACCIA I., 1983 — The infinite number of generalized dimensions of fractals and strange attractors, *Physica*, **8D**, 435.
- HENTSCHEL H.G.E. & PROCACCIA I., 1984 — Relative diffusion in turbulent media: The fractal dimension of clouds, *Phys. Rev., A* **29**, 1461.
- HERRMANN H.J., 1986 — Geometrical cluster growth models and kinetic gelation, *Phys. Rep.*, **136**, 154-227.
- HERRMANN H.J., MANTICA G. & BESSIS D., 1990 — Space-filling bearings, *Phys. Rev. Lett.*, **65**, 3223.
- HILFER R. & BLUMEN A., 1986 — On finitely ramified fractals and their extension, in *Fractals in Physics*, eds. L. PIETRONERO & E. TOSSATI, Elsevier Science Pub., p. 33
- HONG D.C., STANLEY H.E., CONIGLIO A. & BUNDE A., 1986 — Random-walk approach to the two-component random-conductor mixture: Perturbing away from the perfect random resistor network and random super conductor network limits, *Phys. Rev., B* **33**, 4564
- PC HULIN J.P., CAZABAT A.M., GUYON E. & CARMONA F., Editeurs 1990 — *Hydrodynamics of dispersed media*, Random Materials and Processes, Series Ed. H.E. STANLEY & GUYON E., North-Holland, Amsterdam.
- HURST H.E., 1951 — Long-term storage capacity of reservoirs, *Trans. Am. Soc. Civ. Eng.*, **116**, 770.
- HURST H.E., BLACK R.P. & SIMAIKA Y.M., 1965 — Long-term storage: an experimental study, *Constable, London*.
- ISAACSON J. & LUBENSKY T.C. 1980 — Flory exponents for generalized polymer problems, *J. Phys. Lett.*, **41**, L469.
- JENSEN M.H., KADANOFF L.P., LIBCHABER A., PROCACCIA I. & STAVANS J., 1985 — Global universality at the onset of chaos: Results of a forced Rayleigh-Bénard experiment, *Phys. Rev. Lett.*, **55**, 2798.
- JONES P. & WOLFF T., 1988 — Hausdorff dimension of harmonic measures in the plane, *Acta Math.*, **161**, 131.
- JULIA G., 1918 — Mémoire sur l'itération des fonctions rationnelles, *J. Math. Pures et Appl.*, **4**, 47.
- R JULLIEN R., 1986 — Les phénomènes d'agrégation et les agrégats fractals, *Ann.*,

- Télécom.*, **41** 343.
- JULLIEN R. & KOLB M., 1984 — Hierarchical model for chemically limited cluster-cluster aggregation, *J. Phys.*, **17**, L639.
- PC JULLIEN R. & BOTET R., 1987 — *Aggregation and Fractal Aggregates*, World Scientific, Singapore.
- KANTOR Y., 1989 — Properties of tethered surfaces, in *Statistical Mechanics of membranes and surfaces*, eds. D. NELSON, T. PIRAN & S. WEINBERG, *World Scientific*, Vol. **5**, p. 115.
- KANTOR Y. & WEBMAN I., 1984 — Elastic properties of random percolating systems, *Phys. Rev. Lett.*, **52**, 1891.
- KAPITULNIK A. & DEUTSCHER G., 1982 — Percolation characteristics in discontinuous thin films of Pb, *Phys. Rev. Lett.*, **49**, 1444.
- KARDAR M., PARISI G., & YI-CHENG ZHANG, 1986 — Dynamic scaling of growing interfaces, *Phys. Rev. Lett.*, **56**, 889.
- KATZ A.J. & THOMPSON A.H., 1985 — Fractal sandstone pores: Implications for conductivity and pore formation, *Phys. Rev. Lett.*, **54**, 1325.
- KERTESZ J. & WOLF D.E., 1988 — Noise reduction in Eden models: II. Surface structure and intrinsic width, *J. Phys.*, A **21**, 747.
- KESSLER D.A., KOPLIK J. & LEVINE H., 1988 — Pattern selection in fingered growth phenomena, *Adv. in Phys.*, **37**, 255.
- KJEMS J. & FRELTOFT T., 1985 — Neutron and X-ray scattering from aggregates, in: PYNN & SKJELTORP, p. 133.
- KLAFTER J., RUBIN R.J. & SCHLESINGER M.F., Editeurs 1986 — *Transport and Relaxation in Random Material*, World Sci. Press, Singapore.
- f KOLB M., 1986 — Aggregation processes, *Film (couleur & son) de 22mn*, Freie Universität Berlin, ZEAM, FU Berlin.
- KOLB M. & HERRMANN H.J., 1987 — Surface fractals in irreversible aggregation, *Phys. Rev. Lett.*, **59**, 454.
- KOLB M., BOTET J. & JULLIEN R., 1983 — Scaling of kinetically growing clusters, *Phys. Rev. Lett.*, **51**, 1123.
- KOLB M. & JULLIEN R., 1984 — Chemically limited versus diffusion limited aggregation, *J. Physique (Paris)*, **45**, L977.
- KOLMOGOROV A.N., 1941 — The local structure of turbulence in incompressible viscous fluid for very large Reynolds numbers, *C.R. Acad. Sc. URSS*, **31**, 538 (traduction anglaise dans S.K. Friedlander, L. Topper Eds, *Turbulence Classic Papers on Statistical Theory*, Interscience Pub., New York, 1961 ; Dissipation of energy in the locally isotropic turbulence, *C.R. Acad. Sc. URSS*, **32**, 16.
- KOLMOGOROV A.N., 1962 — A refinement of previous hypothesis concerning the local structure of turbulence in a viscous incompressible fluid at high Reynolds number, *J. Fluid Mech.*, **13**, 82.
- R KOPELMAN R., 1986 — Fractal reaction kinetics, *Science*, **241**, 1620.
- KOPELMAN R., 1986 — Rate processes on fractals: theory, simulations, and experiments, *J. Stat. Phys.*, **42**, 185, and references therein.
- KRAICHNAN R.H., 1974 — On Kolmogorov's inertial-range theories, *J. Fluid Mech.*, **62**, 305.
- LACHIEZE-REY M., 1989 — Statistics of the galaxy distribution, *Int. Journ. Theor. Phys.*, **28**, 1125.
- CR LAFAIT J. & TANNER D.B., Editeurs 1989 — ETOPIIM 2, *Proc. of the 2nd Int. Conf. on Electrical Transport and Optical Properties of Inhomogeneous media*, North-Holland, Amsterdam.
- PC LASKAR A.L., BOCQUET J.L., BREBEC G. & MONTY C., Editeurs, 1990 — *Diffusion in materials*, Kluwer Academic Publishers, Dordrecht.
- LEE J. & STANLEY H.E., 1988 — Phase transition in the multifractal spectrum of Diffusion-Limited Aggregation, *Phys. Rev. Lett.*, **26**, 2945.

- PC LE MEHAUTE A., 1990 — *Les géométries fractales*, Hermès, Paris.
- LE MEHAUTE A. & CREPY G., 1983 — Introduction to transfer and motion in fractal media: the geometry of kinetics, *Solid State Ionics*, **9&10**, 17.
- LENORMAND R., 1985 — Différents mécanismes de déplacements visqueux et capillaires en milieux poreux : Diagramme de phase, *C.R. Acad. Sci. Paris*, Ser. II, **301**, 247-250.
- R LENORMAND R., 1989 — Application of fractal concepts in petroleum engineering, *Physica*, **D 38**, 230.
- LENORMAND R., ZARCONI C. & SARR A., 1983 — Mechanisms of displacement of one fluid by another in a network of capillary ducts, *J. Fluid Mech.*, **135**, 337.
- LENORMAND R. & ZARCONI C., 1985 — Invasion percolation in an etched network: Measurement of a fractal dimension, *Phys. Rev. Lett.*, **54**, 2226.
- LENORMAND R., TOUBOUL E. & ZARCONI C., 1988 — Numerical models and experiments on immiscible displacements in porous media, *J. Fluid Mech.*, **189**, 165.
- PC LESIEUR N., 1987 — Turbulence in fluids, in *Mechanics of fluids and transport processes*, ed. R.J. MOREAU & G.Æ. ORAVAS, Martinus Nijhoff, Dordrecht.
- LEVY P., 1930 — Sur la possibilité d'un univers de masse infinie, *Annales de Physique*, p. 184.
- M LEVY P., 1948, 1965 — *Processus stochastiques et mouvement brownien*, Gauthier-Villars, Paris.
- LEVY Y.E. & SOUILLARD B., 1987 — Superlocalization of electrons and waves in fractal media, *Europhys. Lett.*, **4**, 233.
- LEYVRAZ F., 1984 — Large time behavior of the Smoluchowski equations of coagulation, *Phys. Rev.*, **A 29**, 854.
- LIBCHABER A., FAUVE S. & LAROCHE C., 1983 — Two parameters study of the routes to chaos, *Physica*, **7D**, 73.
- LOBB C.J. & FORRESTER M.G., 1987 — Measurement of nonuniversal critical behavior in a two-dimensional continuum percolating system, *Phys. Rev.*, **B 35**, 1899.
- LORENZ E.N., 1963 — Deterministic non-periodic flow, *Journal of Atmospheric Sciences*, **20**, 130.
- LOUIS E., GUINEA F. & FLORES F., 1986 — The fractal nature of fracture, in *Fractals in Physics*, eds. L. PIETRONERO & E. TOSSATI, Elsevier Science Pub., p. 177.
- LOVEJOY S., 1982 — Area-perimeter relation for rain and cloud areas, *Science*, **216**, 185.
- PC MA S., 1976 — *Modern Theory of Critical Phenomena*, Benjamin, New-York.
- MAKAROV N.G., 1985 — On the distortion of boundary sets under conformal mappings, *Proc. London Math. Soc.*, **51**, 369.
- MANDELBROT B.B., 1967 — How long is the coast of Britain? Statistical self-similarity and fractal dimension, *Science*, **155**, 636.
- MANDELBROT B.B., 1974 — Multiplication aléatoire itérées et distributions invariantes par moyenne pondérée aléatoire, *C.R. Acad. Sc. Paris*, **278**, 289 & 355.
- M MANDELBROT B.B., 1975a — *Les objets fractals : forme, hasard et dimension*, Flammarion, Paris.
- MANDELBROT B.B., 1975b — On the geometry of homogeneous turbulence, with stress on the fractal dimension of the iso-surfaces of scalars, *J. Fluid Mech.*, **72**, 401.
- MANDELBROT B.B., 1976 — Géométrie fractale de la turbulence. Dimension de Hausdorff, dispersion et nature des singularités du mouvement des fluides, *Comptes Rendus (Paris)*, **282A**, 119 ; — Intermittent turbulence & fractal dimension: kurtosis and the spectrum exponent $5/3+B$, in *Turbulence and Navier Stokes Equations*, ed. R. TEMAN, *Lecture Notes in Mathematics*, **565**, 121.
- M MANDELBROT B.B., 1977 — *Fractals : form, chance and dimension*, W.H. Freeman, San Francisco.
- MANDELBROT B.B., 1980 — Fractal aspects of the iteration $z \rightarrow \lambda z(1-z)$ for complex λ

- and z , *Non linear dynamics*, R.H.G. HELLEMAN, *Annals of the New-York Academy of Science*, **357**, 249.
- M MANDELBROT B.B., 1982 — *The fractal geometry of nature*, W.H. FREEMAN, New York.
- MANDELBROT B.B., 1986 — Self-affine fractal sets, in: *Fractals in Physics*, eds. L. PIETRONERO & E. TOSSATI, North-Holland, Amsterdam, p. 3.
- MANDELBROT B.B., 1988 — An introduction to multifractal distribution functions, in *Fluctuations and Pattern Formation*, ed H.E. STANLEY & N. OSTROWSKY, KLUWER, Dordrecht.
- M MANDELBROT B.B., 1992 — *Multifractals, If Noise, 1963-1976*, Springer, New York. Plusieurs volumes de compilation sont prévus.
- MANDELBROT B.B. & GIVEN J.A., 1984 — Physical properties of a new fractal model of percolation clusters, *Phys. Rev. Lett.*, **52**, 1853.
- MANDELBROT B.B., PASSOJA D. E. & PAULLAY A.J., 1984 — Fractal character of fracture surfaces of metals, *Nature*, **308**, 721.
- MANDELBROT B.B. & VAN NESS J.W., 1968 — Fractional Brownian motions, fractional noises and applications, *SIAM Rev.*, **10**, 422.
- MANDELBROT B.B. & WALLIS J.R., 1968 — Noah, Joseph, and operational hydrology, *Water Resour. Res.*, **5**, 321.
- MARTIN J.E., 1986 — Scattering exponents for polydisperse surface and mass fractals, *J. Appl. Cryst.*, **19**, 25.
- MATSUSHITA M., SANO M., HAYAKAWA Y., HONJO H. & SAWADA Y., 1984 — Fractal structures of zinc metal leaves grown by electrodeposition, *Phys. Rev. Lett.*, **53**, 286.
- MATSUSHITA M., HAYAKAWA Y. & SAWADA Y., 1985 — Fractal structure and cluster statistics of zinc-metal trees deposited on a line electrode, *Phys. Rev. A* **32**, 3814.
- MATSUSHITA M. & FUJIKAWA H., 1990 — Diffusion-limited growth in bacterial colony formation, *Physica, A* **168**, 498.
- MAYNARD R., 1989 — Elastic and thermal properties of hierarchical structures: Application to silica aerogels, *Physica, A* **157**, 601.
- MEAKIN P., 1983 — Formation of fractal clusters and networks by irreversible diffusion-limited aggregation, *Phys. Rev. Lett.*, **51**, 1119.
- R MEAKIN P., 1987 — The growth of fractal aggregates, in: PYNN & RISTE, p. 45.
- MEAKIN P., CONIGLIO A., STANLEY H.E. & WITTEN T.A., 1986 — Scaling properties for the surfaces of fractal and nonfractal objects: An infinite hierarchy of critical exponents, *Phys. Rev., A* **34**, 3325.
- MEAKIN P. & SAPOVAL B., 1991 — Random-walk simulation of the response of irregular or fractal interfaces and membranes, *Phys. Rev., A* **43**, 2993.
- MENEVEAU C. & SREENIVASAN K.R., 1987a — Simple multifractal cascade model for fully developed turbulence, *Phys. Rev. Lett.*, **59**, 1424.
- MENEVEAU C. & SREENIVASAN K.R., 1987b — The multifractal spectrum of the dissipation field in turbulent flow, in: *Physics of Chaos and Systems far from Equilibrium*, eds. MINH-DUONG VAN and B. NICHOLS, North-Holland, Amsterdam.
- MENEVEAU C. & SREENIVASAN K.R., 1991 — The multifractal nature of turbulent energy dissipation, *J. Fluid Mech.*, **224**, 429.
- METROPOLIS N., STEIN M.L. & STEIN P.R., 1973 — On finite limit sets for transformation on the unit interval, *J. Comb. Theory*, **15**, 25.
- MINKOWSKI H., 1901 — Über die Begriffe Länge, Oberfläche und Volumen, *Jahresbericht der Deutschen Mathematikervereinigung*, **9**, 115.
- MURAT M. & AHARONY A., 1986 — Viscous fingering and diffusion-limited aggregates near percolation, *Phys. Rev. Lett.*, **57**, 1875.
- NIEMEYER L., PIETRONERO L. & WIESMANN H.J., 1984 — Fractal dimension of dielectric breakdown, *Phys. Rev. Lett.*, **52**, 1033-1036.

- NOVIKOV E. & STEWART R.W., 1964 — Turbulence intermittency and fluctuation spectrum of the dissipation energy (in Russian), *Isvestia Akademii Nauk SSR; Seria Geofizicheskaja*, **3**, 408.
- OBUKHOV A.M., 1962 — Some specific features of atmospheric turbulence, *J. of Fluid Mech.*, **13**, 77.
- R ORBACH R., 1986 — Dynamics of fractal networks, *Science*, **231**, 814.
- R ORBACH R., 1989 — Fractons dynamics, *Physica, D* **38**, 266.
- R PALADIN G. & VULPIANI A., 1987 — Anomalous scaling laws in multifractal objects, *Phys. Rep.*, **156**, 147
- PANDE C.S., RICHARDS L.R. & SMITH S., 1987 — Fractal characteristics of fractured surfaces, *J. Mat. Science Lett.*, **6**, 295.
- PATERSON L., 1984 — Diffusion-limited aggregation and two-fluid displacements in porous media, *Phys. Rev. Lett.*, **52**, 1621.
- PC PECKER J.-C., 1988 — Le ciel est noir, dans L'univers : des faits aux théories, *Pour la Science*, Belin, Paris.
- PEEBLES P.J.E., 1989 — The fractal galaxy distribution, *Physica, D* **38**, 273.
- M PEITGEN H.O., Editeur 1988 — *The Art of Fractals. A Computer Graphical Introduction*, Springer-Verlag, Berlin.
- M PEITGEN H.O. & RICHTER P.J., Editeurs 1986 — *The Beauty of Fractals*, Springer-Verlag, Berlin.
- M PEITGEN H.O. & SAUPE D., Editeurs 1988 — *The Science of Fractal Images*, Springer-Verlag, Berlin.
- PER BAK, TANG C. & WIESENFELD K., 1988 — Self-organized criticality, *Phys. Rev.*, **A 38**, 364.
- PETERSEN J., ROMAN H.E., BUNDE A. & DIETERICH W., 1989 — Nonuniversality of transport exponents in continuum percolation systems: effects of finite jump distance, *Phys. Rev.*, **B 39**, 893.
- PFEIFER P., AVNIR D. & FARIN D., 1984 — Scaling behavior of surface irregularity in the molecular domain: From adsorption studies to fractal catalysts, *J. Stat. Phys.*, **36**, 699.
- CR PIETRONERO L. & TOSSATI E., Editeurs 1986 — *Fractals in Physics*, Elsevier, North-Holland, Amsterdam.
- CR PIETRONERO L., Editeur 1989 — *Fractals' physical origin and properties*, Plenum Press, New-York.
- PIETRONERO L., 1987 — The fractal structure of the universe. Correlation of galaxies and clusters and the average mass density, *Physica, A* **144**, 257.
- PO-ZEN WONG, 1988 — The statistical physics of sedimentary rock, *Physics Today*, décembre, 24.
- PONTRJAGIN L. & SCHNIRELMAN L., 1932 — Sur une propriété métrique de la dimension, *Ann. of Math.*, **33**, 156.
- CR PYNN R. & RISTE T., Editeurs 1987 — *Time-Dependent Effects in Disordered Materials*, Plenum Press, New York.
- CR PYNN R. & SKJELTORP A., Editeurs 1985 — *Scaling Phenomena in Disordered Systems*, Plenum Press, New York.
- RAMMAL R. & TOULOUSE G., 1983 — Random walks on fractal structures and percolation clusters, *J. Physique Lett.*, **44**, 13.
- RAMMELT U. & REINHARD G., 1990 — On the applicability of a constant phase element (CPE) to the estimation of roughness of solid metal electrodes, *Electrochimica Acta*, **35**, 1045.
- RAND D.A., 1989 — The singularity spectrum $f(\alpha)$ for cookie-cutters, *Ergod. Theor. & Dynam. Sys.*, **9**, 527.
- RICHARDSON L.F., 1961 — The problem of contiguity: an appendix of statistics of deadly quarrels, *General systems yearbook*, **6**, 139.
- ROSSO M., GOUYET J.F. & SAPOVAL B., 1985 — Determination of percolation

- probability from the use of a concentration gradient, *Phys. Rev.*, **B 32**, 6053.
- ROSSO M., GOUYET J.F. & SAPOVAL B., 1986 — Gradient percolation in three dimensions and relation to diffusion fronts, *Phys. Rev. Lett.*, **57**, 3195.
- ROUX S. & GUYON E., 1989 — Temporal development of invasion percolation, *J. Phys.*, **A 22**, 3693.
- RUELLE D., 1982 — Repellers for real analytic maps, *Ergod. Theor. & Dynam. Sys.*, **2**, 99.
- RUELLE D., 1989 — The thermodynamic formalism for expanding maps, *Commun. Math. Phys.*, **125**, 239.
- RUELLE D. & TAKENS F., 1971 — On the nature of turbulence, *Commun. Math. Phys.*, **20**, 167.
- RUSS S., ROMAN H. & BUNDE A., 1991 — Vibrational density of states of general two-components mixtures near percolation threshold, *J. Phys. C*.
- RYS F.S. & WALDVOGEL A., 1986 — Analysis of the fractal shape of severe convective clouds, in: *Fractals in Physics*, eds. L. PIETRONERO & E. TOSSATI, Elsevier Science Pub., p. 461.
- PC SAPOVAL B., 1990 — *Les Fractales*, Edition Diffusion EDITECH, n°125.
- R SAPOVAL B., 1991 — Fractal electrodes, fractal membranes and fractal catalysts, in: *Fractals and the Physics of Disordered Systems*, eds. BUNDE A. & HAVLIN S., Springer-Verlag, Berlin.
- SAPOVAL B., ROSSO M. & GOUYET J.F., 1985 — The fractal nature of a diffusing front and the relation to percolation, *J. Phys. Lett.*, **46**, L149.
- R SAPOVAL B., ROSSO M. & GOUYET J.F., 1989 — Fractal Physics and Superionic Conductors, in: *Superionic Conductors and Solid Electrolytes: Recent trends*, eds. A. LASKAR & S. CHANDRA, Acad. Press, New-York.
- f SAPOVAL B., ROSSO M., GOUYET J.F. & COLONNA J.F., 1985 — Structure fractale d'un front de diffusion, *film couleur sonore video 12mn*, Imagiciel, 91128 Palaiseau.
- SCHAEFER D.W., 1988 — Fractal models and the structure of materials, *MRS Bulletin*, Vol. **XIII**, n°2, 22.
- SCHAEFER D.W., WILCOXON J.P., KEEFER K.D., BUNKER B.C., PEARSON R.K., THOMAS I.M. & MILLER D.E., 1987 — Origin of porosity in synthetic materials in: *Physics and chemistry of porous media II*, Ed. J.R. BANAVAR, J. KOPLIK & K.W. WINKLER, Amer. Inst. of Phys., New York.
- R SCHERER G.W., 1990 — Theory of drying, *J. Am. Ceram. Soc.* **73**, 3.
- PC SCHUSTER H.G., 1984 — *Deterministic Chaos*, Physik-Verlag, Weinheim.
- SEIDEN P.E. & SCHULMAN L.S., 1990 — Percolation model of galactic structure, *Adv. in Phys.*, **39**, 1.
- SHAW T.M., 1987 — Drying of an immiscible displacement process with fluid counterflow, *Phys. Rev. Lett.*, **59**, 1671.
- SHENDER E.F., 1976 — Thermodynamics of dilute Heisenberg ferromagnets near the percolation threshold, *J. Phys. C*, **9**, L309.
- SKJELTORP A., 1988 — Fracture experiments on monolayers of microspheres, in: *Random Fluctuations and Pattern Growth : Experiments and Models*, eds. H.E. STANLEY & N. OSTROWSKY, Kluwer Academic Pub. Dordrecht.
- M SMALE S., 1980 — *The mathematics of time : essays on dynamical systems, economic processes and related topics*, Springer Verlag, New York.
- SREENIVASAN K.R. & MENEVEAU C., 1986 — The fractal facets of turbulence, *J. Fluid Mech.* **173**, 357.
- R STANLEY H.E., 1985 — Fractal concepts for disordered systems: the interplay of physics and geometry, in: PYNN & SKJELTORP, p. 49.
- STANLEY H.E. & CONIGLIO A., 1983 — Fractal structure of the incipient infinite cluster in percolation, in: *Percolation structures and Processes*, eds. DEUTSCHER G., ZALLEN R. & ADLER, J., *Ann. Isr. Phys. Soc.*, **5**, 101.
- CR STANLEY H.E. & OSTROWSKY N., Editeurs 1985 — *On Growth and Form. Fractal and*

- non-fractal patterns in physics*, Martinus Nijhoff, Dordrecht.
- CR STANLEY H.E. & OSTROWSKY N., Editeurs 1988 — *Random fluctuations and Pattern Growth. Experiments and models*, Kluwer, Dordrecht
- CR STANLEY H.E. & OSTROWSKY N., Editeurs 1990 — *Correlations and connectivity : Geometric aspects of physics, chemistry and biology*, Kluwer, Dordrecht.
- PC STAUFFER D., 1985 — *Introduction to percolation theory*, Taylor & Francis, London.
- STAUFFER D., CONIGLIO A. & ADAM A., 1982 — , *Adv. Polymer Science*, **44**, 103.
- STRALEY J.P., 1976 — Critical phenomena in resistor networks, *J. Phys. C*, **9**, 783.
- STRALEY J.P., 1977 — Critical exponents for the conductivity of random resistor lattices, *Phys. Rev.*, **B 15**, 5733.
- STRALEY J.P., 1982 — Critical phenomena in resistor networks, *J. Phys. C*, **15**, 2333.
- SYKES M.F. & ESSAM J.W., 1964 — Exact critical percolation probabilities for site and bond percolation in two dimensions, *J. Math. Phys.*, **5**, 1117-1127.
- PC TAKAYASU H., 1990 — *Fractals in the physical sciences*, Manchester University Press, Manchester and New York.
- TRICOT C., 1982 — Two definitions of fractional dimension, *Math. Proc. Camb. Phil. Soc.*, **91**, 57.
- TRICOT C., 1988 — Dimension fractale et spectre, *J. Chim. Phys.*, **85**, 379.
- VACHER R., WOIGNER T., PELOUS J. & COURTENS E., 1988 — Structure and self-similarity of silica aerogels, *Phys. Rev.*, **B 37**, 6500.
- VACHER R., COURTENS E., CODDENS G., HEIDEMANN A., TSUJIMI Y., PELOUS J. & FORET M., 1990 — Crossovers in the density of states of fractal silica aerogels, *Phys. Rev. Lett.*, **65**, 1008.
- VAN DONGEN P.G.J. & ERNST M.H., 1985 — Cluster size distribution in irreversible aggregation at large times, *J. Phys.*, **A 18**, 2779.
- PC VAN DER ZIEL A., 1970 — *Noise, Sources, characterization, measurement*, Prentice-Hall, Inc., Englewood Cliffs, N.J.
- VANNIMENUS J., NADAL J.P. & MARTIN H., 1984 — On the spreading dimension of percolation and directed percolation clusters, *J. Phys.*, **A 17**, L351.
- VANNIMENUS J., & NADAL J.P., 1984 — Strip-these for random systems, *Physics Reports*, **103**, 47.
- PC VICSEK T., 1989, 1991 — *Fractal growth phenomena*, World Scientific, Singapour.
- VON KOCH H., 1904 — Sur une courbe continue sans tangente, obtenue par une construction géométrique élémentaire, *Arkiv för Matematik, Astronomi och Fysik* **1**, 145.
- VOLD M.J., 1963 — Computer simulation of floc formation in colloidal suspension, *J. Colloid Sci.*, **18**, 684.
- R VOSS R.F., 1985a — Random fractals: Characterization and measurement. in: PYNN & SKJELTORP.
- R VOSS R.F., 1985b — Random fractal forgeries. in: *Fundamental Algorithms in Computer Graphics*, ed. R.A. EARNSHAW, Springer-Verlag, Berlin (et planches couleur, pp. 13-16).
- R VOSS R.F. 1988 — Fractals in nature: from characterization to simulation, in: *The Science of Fractal Images*, eds. H.-O. PEITGEN & D. SAUPE, Springer-Verlag, New York Inc.
- VOSS R.F., LAIBOVITZ R.B. & ALLESSANDRINI E.I., 1982 — Fractal (scaling) clusters in thin gold films near the percolation threshold, *Phys. Rev. Lett.*, **49**, 1441.
- WEBMAN I., JORTNER J. & COHEN M.H., 1985 — Numerical simulation of electrical conductivity in microscopically inhomogeneous materials, *Phys. Rev. B* **11**, 2885.
- WEBMAN I. & GRETT G.S., 1985 — Dynamical behavior of fractal structures, *Phys. Rev. B* **31**, 1689.
- WEITZ D.A. & HUANG J.S., 1984 — Self-similar structures and the kinetics of aggregation of gold colloids, in: *Aggregation Gelation*, eds. F. FAMILY & D.P.

- LANDAU, North-Holland, Amsterdam, p. 19.
- WEITZ D.A. & OLIVERIA M., 1984 — Fractal structures formed by kinetic aggregation of aqueous gold colloids, *Phys. Rev. Lett.*, **52**, 1433.
- WEITZ D.A., LIN M.Y., HUANG J.S., WITTEN T.A., SINSHA S.K., GERTNER J.S. & BALL C., 1985 — Scaling in colloid aggregation, *in*: PYNN & SKJELTORP, p. 171.
- WEITZ D.A. & LIN M.Y., 1986 — Dynamic scaling of cluster-mass distribution in kinetic colloid aggregation, *Phys. Rev. Lett.*, **57**, 2037.
- WILKINSON D. & WILLEMSSEN J.F., 1983 — Invasion percolation: a new form of percolation theory, *J. Phys.*, A **16**, 3365.
- WILLIAMS T. & BJERKNES R., 1972 — Stochastic model for abnormal clone spread through epithelial basal layer, *Nature*, **236**, 19.
- WITTEN T.A. & SANDER L.M., 1981 — Diffusion-limited aggregation, a kinetic critical phenomenon, *Phys. Rev. Lett.*, **47**, 1400.
- WITTEN T.A. & SANDER L.M., 1983 — Diffusion-limited aggregation, *Phys. Rev.*, B **27**, 5686.
- WOIGNER T., PHALIPPOU J., VACHER R., PELOUS J. & COURTENS E., 1990 — Different kinds of fractal structures in silica aerogels, *J. Non-Cryst. Solids*, **121**, 198.
- WOLF D.E. & KERTESZ J., 1987 — Surface width exponents for three- and four-dimensional Eden growth, *Europhys. Lett.*, **4**, 651.
- R WOOL R.P., 1988 — *Dynamics and Fractal Structure of Polymer Interfaces*, Internal Symposium on New Trends *in*: Physics and Physical Chemistry, Third Chemical Congress of North America, Toronto, June 5.
- WU J., GUYON E., PALEVSKI A., ROUX S. & RUDNICK I., 1987 — Modes de flexion d'une plaque mince au voisinage d'un seuil de percolation, *C.R. Acad. Sci. Paris*, **305**, Série II, 323.
- ZALLEN R., 1983 — Introduction to percolation: a model for all seasons, *in*: *Percolation structures and Processes*. eds. DEUTSCHER G., ZALLEN R. & ADLER, J., *Ann. Isr. Phys. Soc.*, **5**, 207.
- ZIFF R.M. & SAPOVAL B., 1986 — The efficient determination of the percolation threshold by a frontier generating walk, *J. Phys.*, A **19**, 1169.
-