SIMPLE VIEWS ON CONDENSED MATTER

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Pierre-Gilles de Gennes

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Foreword

Books of “collected papers” are frequent in our days. Are they useful? I am hesitant about this. Looking at my own articles, I found a number of ideas which ultimately lead to nowhere... . Also a certain fraction was wrong.

However, on closer scrutiny, I listed two lots which could still, possibly, be useful. The articles of the first lot are relatively general, but simple, and can be used as an elementary starting point for a beginner. The second lot is formed by papers which never really reached an international readership, because they appeared in relatively obscure journals. I was tempted to give them a second chance — but finally we took only a few (because of a language problem).

It rapidly became obvious that the articles in the list — being rather ancient — would give a distorted view of their own subfield, since science moves fast. It was necessary then to add some comments, or “afterthoughts”. These afterthoughts are highly subjective! They sometimes focus on one later discovery, by younger colleagues, based on the same general ideas. Some other comments concern a flaw in my original views.

On the whole, I found it amusing to observe how short-sighted I have been — unable to imagine certain natural consequences of one idea. Some of these surprises are also described in the “afterthoughts”. On the other hand, I *never* give a detailed list of references to more recent work. Only a few key references show up: I owe a lot here to Y. Heffer and M. Monnerie, who traced them. I am also thankful to the various publishers who allowed us to reprint the papers — with one exception (Gordon and Breach), where the permission fees for one article were at such a high cost, that we were forced to take this paper out of our list.

The whole construction is fragile. But I still hope that it can give, to a young reader, a certain feeling about the enthusiasm (and novelty) of our condensed matter research during these post war decades... .

Pierre Gilles de G.
Paris, March 1992

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Table of Contents

Foreword

v

Part I. Solid State

1. Sur un exemple de propagation dans un milieu désordonné (with P. Lafore and J. P. Millot) 3
J. Phys. Rad. **20**, 624 (1959)
2. Effects of double exchange in magnetic crystals 13
Phys. Rev. **118**, 141 (1960)
3. Nuclear magnetic resonance modes in magnetic material. I. Theory (with P. Pincus, F. Hartmann-Boutron, J. M. Winter) 28
Phys. Rev. **129**, 1105 (1963)
4. Onset of superconductivity in decreasing fields 39
(with D. Saint-James)
Phys. Lett. **7**, 306 (1963)
5. Boundary effects in superconductors 43
Rev. Mod. Phys. **36**, 225 (1964)

Part II. Liquid Crystals

6. Soluble model for fibrous structures with steric constraints 59
J. Chem. Phys. **48**, 2257 (1968)
7. Conjectures sur l'état smectique 62
J. de Phys. C4 **30**, 65 (1969)
8. Dynamics of fluctuations in nematic liquid crystals 70
(with Groupe d'Etudes des Cristaux Liquides, Orsay)
J. Chem. Phys. **51**, 816 (1969)
9. Note on the dynamics of prenematic fluids 78
(unpublished)
10. An analogy between superconductors and smectics A 81
Solid Stat. Comm. **10**, 753 (1972)
11. Hydrodynamic properties of fluid lamellar phases of lipid/water 86
(with F. Brochard)
Pramana, Supp. **1**, 1 (1975)

Part III. Polymers

12. Quasi-elastic scattering of neutrons by dilute, ideal, polymer solutions: 111
 I. Free-draining limit
Physics **3**, 37 (1967)
13. Quasi-elastic scattering by dilute, ideal, polymer solutions: 120
 II. Effects of hydrodynamic interactions
 (with E. Dubois-Violette)
Physics **3**, 181 (1967)
14. Minimum number of aminoacids required to build up a specific receptor
 with a folded polypeptide chain 138
Introduction to Polymer Dynamics (Cambridge Univ. Press, 1990), pp. 17–26
15. Reptation of a polymer chain in the presence of fixed obstacles 149
J. Chem. Phys. **55**, 572 (1971)
16. Coil-stretch transition of dilute flexible polymers under ultrahigh
 velocity gradients 158
J. Chem. Phys. **60**, 5030 (1974)
17. Solutions of flexible polymers: neutron experiments and interpretation 172
 (with M. Daoud, J. P. Cotton, B. Farnoux, G. Jannink, G. Sarma,
 H. Benoit, R. Duplessix, C. Picot)
Macromolecules **8**, 804 (1975)
18. Theoretical methods of polymer statistics 187
Rivista del Nuovo Cimento **7**, 363 (1977)
19. Ecoulements viscométriques de polymères enchevêtrés 203
C. R. Acad. Sci. (Paris) **288**, 219 (1979)
20. Theory of long-range correlations in polymer melts 206
Faraday Discussions of the Royal Society of Chemistry, no. 68, 96 (1979)
21. Tight knots 215
Macromolecules **17**, 703 (1984)
22. A second type of phase separation in polymer solutions 217
C. R. Acad. Sci. (Paris) **313**, 1117 (1991)

Part IV. Interfaces

23. Phénomènes aux parois dans un mélange binaire critique 227
 (with M. E. Fisher)
C. R. Acad. Sci. (Paris) **287B**, 207 (1978)
24. Suspensions colloïdales dans une solution de polymères 232
C. R. Acad. Sci. (Paris) **288B**, 359 (1979)
25. Conformations of polymers attached to an interface 235
Macromolecules **13**, 1069 (1980)

26. Sur une règle de somme pour des chaînes polymériques semi-diluées près d'une paroi	243
<i>C. R. Acad. Sci. (Paris)</i> 290B , 509 (1980)	
27. Microemulsions and the flexibility of oil/water interfaces (with C. Taupin)	245
<i>J. Phys. Chem.</i> 86 , 2294 (1982)	
28. Transitions de monocouches à molécules polaires (with D. Andelman, F. Brochard, J.-F. Joanny)	256
<i>C. R. Acad. Sci. (Paris)</i> 301 , 675 (1985)	
29. Polymers at an interface: a simplified view	260
<i>Advances in Colloid and Interface Science</i> 27 , 189 (1987)	
30. Stabilité des films de savon "jeunes"	282
<i>C. R. Acad. Sci. (Paris)</i> 305 , 9 (1987)	

Part V. Wetting and Adhesion

31. Wetting: statics and dynamics	289
<i>Rev. Mod. Phys.</i> 57 , 827 (1985)	
32. Dynamics of drying and film-thinning	327
<i>Physics of Amphiphilic Layers</i> , ed. J. Meunier, D. Langevin and N. Bocarra (Springer, 1987), p. 64	
33. Tension superficielle des polymères fondus	337
<i>C. R. Acad. Sci. (Paris)</i> 307 , 1841 (1988)	
34. Etalement d'une goutte stratifiée incompressible (with A. M. Cazabat)	342
<i>C. R. Acad. Sci. (Paris)</i> 310 , 1601 (1990)	
35. Dynamics of partial wetting (with F. Brochard-Wyart)	349
<i>Advances in Colloid and Interface Science</i> 39 , 1 (1992)	
36. Fracture d'un adhésif faiblement réticulé	363
<i>C. R. Acad. Sci. (Paris)</i> 307 , 1949 (1988)	
37. Polymer-polymer welding and sliding (unpublished)	369

Part VI. Chirality

38. Sur l'impossibilité de certaines synthèses asymétriques	391
<i>C. R. Acad. Sci. (Paris)</i> 270B , 891 (1970)	

39. Pierre Curie et le rôle de la symétrie dans des lois physiques 394
Symmetries and Broken Symmetries in Condensed Matter Physics,
edited by N. Boccara (IDSET, 1981), pp. 1–9
40. Discrimination chirale dans une monocouche de Langmuir 403
C. R. Acad. Sci. (Paris) **307**, 233 (1988)