

References

- [1] AIP Conference Proceedings **416**,
SIMILARITIES AND DIFFERENCES BETWEEN ATOMIC NUCLEI AND CLUSTERS, ed. by Y. Abe, I. Arai, S. M. Lee, and K. Yabana, Tsukuba, Japan, 1997; references therein.
- [2] H. W. Kroto, J. R. Heath, S. C. O'Brien, R. F. Curl, and R. E. Smalley,
Nature **318**, 162 (1985).
- [3] W. Kratschmer, K. Fostiropoulos, and D. R. Huffman,
Chem. Phys. Lett. **170**, 167 (1990).
- [4] R. J. Doyle, and M. M. Ross,
J. Phys. Chem. **95**, 4954 (1991).
- [5] E. E. B. Campbell, R. Ehlich, A. Hielscher, J. M. A. Frazao, and I. V. Hertel,
*Z. Phys. D***23**, 1 (1992).
- [6] R. Ehlich, M. Westerburg, and E. E. B. Campbell,
J. Chem. Phys. **104**, 1900 (1996).
- [7] E. E. B. Campbell, and I. V. Hertel,
Nucl. Instrum. Methods B **112**, 48 (1996).
- [8] E. E. B. Campbell, V. Schyja, R. Ehlich, and I. V. Hertel,
Phys. Rev. Lett. **70**, 263 (1993).
- [9] F. Rohmund, and E. E. B. Campbell,
Chem. Phys. Lett. **245**, 237 (1995).
- [10] F. Rohmund, and E. E. B. Campbell,
Phys. Rev. Lett. **76**, 3289 (1996).

- [11] F. Rohmund, A. V. Glotov, K. Hansen, and E. E. B. Campbell, *J. Phys. B* **29**, 5143 (1996).
- [12] A. V. Glotov, F. Rohmund, and E. E. B. Campbell, *AIP Conference Proceedings* **416**, 177 (1997).
- [13] P. Hvelplund, L. H. Andersen, H. K. Haugen, and J. Lindhard D. C. Lorents, R. Malhotra, and R. Ruoff, *Phys. Rev. Lett.* **69**, 1915 (1992).
- [14] C. Brink, L. H. , andersen, P. Hvelplund, and D. H. Yu, *Z. Phys. D* **29**, 45 (1994).
- [15] D. H. Yu, L. H. Andersen, C. Brink, and P. Hvelplund, *Z. Phys. D* **29**, 53 (1994).
- [16] M. C. Larsen, P. Hvelplund, M. O. Larsson, and H. Shen, (to be published).
- [17] R. D. Beck, P. John, M. M. Alvarez, F. Diederich, and R. L. Whetten, *J. Phys. Chem.* **95**, 8402 (1991).
- [18] C. Yerezian, K. Hansen, R. D. Beck, and R. L. Whetten, *J. Chem. Phys.* **98**, 7480 (1993).
- [19] P. Weis, J. Rockenberger, R. D. Beck, and M. M. Kappes, *J. Phys. Chem.* **104**, 3629 (1996).
- [20] R. D. Beck, J. Rockenberger, P. Weis, and M. M. Kappes, *J. Phys. Chem.* **104**, 3638 (1996).
- [21] H. G. Busmann, T. Lill, and I. V. Hertel, *Chem. Phys. Lett.* **187**, 459 (1991).
- [22] H. G. Busmann, T. Lill, B. Reif, and I. V. Hertel, *Surf. Sci.* **272**, 146 (1992).

- [23] T. Lill, H. G. Busmann, B. Reif, and I. V. Hertel,
Appl. Phys. A **55**, 461 (1992).
- [24] T. Lill, F. Lacher, H. G. Busmann, and I. V. Hertel,
Phys. Rev. Lett. **71**, 3383 (1993).
- [25] T. Lill, H. G. Busmann, and I. V. Hertel,
Z. Phys. B **91**, 267 (1993).
- [26] H. G. Busmann, T. Lill, I. V. Hertel, and H. G. Maguire,
J. Chem. Phys. **98**, 7574 (1993).
- [27] T. Lill, H. G. Busmann, B. Reif, and I. V. Hertel,
Surf. Sci. **312**, 124 (1994).
- [28] T. Lill, H. G. Busmann, F. Lacher, and I. V. Hertel,
Int. J. Mod. Phys. B **10**, 11 (1996).
- [29] T. LeBrun, H. G. Berry, S. Cheng, R. W. Dunford, H. Esbensen, D. S.
Gemmell, and E. P. Kanter,
W. Bauer,
Phys. Rev. Lett. **72**, 3965 (1994).
- [30] S. Cheng, H. G. Berry, R. W. Dunford, H. Esbensen, D. S. Gemmell,
E. P. Kanter, and T. LeBrun,
Phys. Rev. A **54**, 3182 (1996).
- [31] Y. Nakai, A. Itoh, T. Kambara, Y. Bitoh, and Y. Awaya,
J. Phys. B **30**, 3049 (1997).
- [32] J. Opitz, and B. A. Huber,
AIP Conference Proceedings **416**, 422 (1997).
- [33] Z. Wan, J. F. Christian, and S. L. Anderson,
J. Chem. Phys. **96**, 3344 (1991).

- [34] J. F. Christian, Z. Wan, and S. L. Anderson,
J. Phys. Chem. **96**, 3574 (1992).
- [35] J. F. Christian, Z. Wan, and S. L. Anderson,
Chem. Phys. Lett. **199**, 373 (1992).
- [36] J. F. Christian, Z. Wan, and S. L. Anderson,
J. Phys. Chem. **96**, 10597 (1992).
- [37] Z. Wan, J. F. Christian, Y. Basir, and S. L. Anderson,
J. Chem. Phys. **99**, 5858 (1993).
- [38] J. F. Christian, Z. Wan, and S. L. Anderson,
J. Chem. Phys. **99**, 3468 (1993).
- [39] Y. Basir, and S. L. Anderson,
Chem. Phys. Lett. **243**, 45 (1995).
- [40] M. Foltin, M. Lezius, P. Scheier, and T. D. Märk,
J. Chem. Phys. **98**, 9624 (1993).
- [41] P. Scheier, B. Dünser, R. Wörgötter, D. Muigg, S. Matt, O. Echt, M.
Foltin, and T. D. Märk,
Phys. Rev. Lett. **77**, 2654 (1996).
- [42] S. Tomita, S. M. Lee, T. Miura, T. Mizota, and J. X. Jiang, Z. Phys.
D **41**, 63 (1997).
- [43] R. Ehlich, E. E. B. Campbell, O. Knospe, and R. Schmidt,
Z. Phys. D **28**, 153 (1993).
- [44] Y. Xia, Y. Xing, C. tan, L. Mei, and H. Yang,
Nucl. Inst. Methods B **111**, 41 (1996).
- [45] R. Schmidt, J. Schulte, O. Knospe, and G. Seifert,
Phys. Lett. A **194**, 101 (1994).

- [46] R. C. Mowrey, D. W. Brenner, B. I. Dunlap, J. W. Mintmire, and C. T. White,
J. Phys. Chem. **95**, 7138 (1991).
- [47] Z. Y. Man, Z. Y. Pan, and Y. K. Ho,
Phys. Lett. A **208**, 53 (1995).
- [48] C. W. Walter, Y. K. Bae, D. C. Lorents, and J. R. Peterson,
Chem. Phys. Lett. **195**, 543 (1992).
- [49] B. Walch, C. L. Cocke, R. Voelpel, and E. Salzborn,
Phys. Rev. Lett. **72**, 1439 (1994).
- [50] P. Scheier, B. Dünser, and T. D. Märk,
Phys. Rev. Lett. **74**, 3368 (1995).
- [51] N. Selberg, A. Bárány, C. Biedermann, C. J. Settetland, H. Cederquist,
A. Langereis, M. O. Larsson, and A. Wännström,
P. Hvelplund,
Phys. Rev. A **53**, 874 (1996).
- [52] J. P. Briand, and L. de Billy,
J. Jin, H. Khemliche, M. H. Prior, Z. Xie, and M. Nectoux,
D. H. Schneider,
Phys. Rev. A **53**, R2925 (1996).
- [53] B. Walch, U. Thumm, M. Stöckli, and C. L. Cocke,
S. Klawikowski,
Phys. Rev. A **58**, 1261 (1998).
- [54] A. Bárány, G. Astner, H. Cederquist, H. Danared, S. Huldt, P.
Hvelplund, A. Johnson, H. Knudsen, L. Liljeby, and K. G. Rensfelt,
Nucl. Inst. Methods B **9**, 397 (1985).
- [55] A. Niehaus,
J. Phys. B **19**, 2925 (1986).

- [56] J. Jin, H. Khemliche, M. H. Prior, and Z. Xie,
Phys. Rev. A **53**, 615 (1996).
- [57] I. M. Torrens,
INTERATOMIC POTENTIALS (ACADEMIC PRESS, 1972)
- [58] L. H. Thomas,
Proc. Cambridge Philos. Soc. **23**, 542 (1927).
- [59] E. Fermi,
Z. Phys. **48**, 73 (1928).
- [60] G. Moloère,
Z. Naturforsch. **2a**, 133 (1947).
- [61] O. B. Firsov,
Sov. Phys. JETP **6**, 534 (1958).
- [62] *ATOMIC AND MOLECULAR PROCESSES - PURE AND APPLIED PHYSICS 13* (ACADEMIC PRESS, 1962), *ed. by* D. R. Bates,
- E. A. Mason, and J. T. Vanderslice,
HIGH-ENERGY ELASTIC SCATTERING OF ATOMS, MOLECULES, AND IONS
p. 663.
- [63] D. J. O'Connor, and R. J. MacDonald,
Radiat. Eff. **34**, 247 (1977).
- [64] *INTERATOMIC POTENTIALS AND SIMULATION OF LATTICE DEFECTS* (PLENUM PRESS, 1972), *ed. by* P. C. Gehlen, J. R. Beeler,
and R. I. Jaffee,
- I. M. Torrens and M. T. Robinson,
COMPUTER SIMULATION OF ATOMIC DISPLACEMENT CASCADES IN SOLIDS p. 423.

- [65] S. M. Lee, T. Miura, T. Kurita, S. Tomita, K. Uchida, H. Sasaki, and T. Nishimura,
AIP Conference Proceedings **416**, 165 (1997).
- [66] L. Wählin,
Nucl. Instrum. Methods **27**, 55 (1964).
- [67] L. Valyi,
ATOM AND ION SOURCE (A WILEY-INTERSCIENCE PUBLICATION, 1977)
- [68] P. P. Wegner,
MOLECULAR BEAMS AND LOW DENSITY GASDYNAMICS, GASDYNAMICS volume 4 (MARCEL DEKKER, INC. New York, 1974)
- [69] V. H. Reis, and J. B. Fenn,
J. Chem. Phys. **39**, 3240 (1963).
- [70] J. Deckers, and J. B. Fenn,
Rev. Sci. Instrum. **34**, 96 (1963).
- [71] G. Scoles,
ATOMIC AND MOLECULAR BEAM METHODS Vol. 1 (New York, Oxford, Oxford university press, 1988)
- [72] J. Abrefah, D. R. Olander, M. Balooch, and W. J. Siekhaus,
Appl. Phys. Lett. **60**, 1313 (1992).
- [73] J. L. Wiza,
Nucl. Instrum. Methods **162**, 587 (1979).
- [74] K. Tobita, H. Takeuchi, H. Kimura, Y. Kusama, and M. Nemoto,
Jpn. J. Appl. Phys. **26**, 509 (1987).

- [75] A. S. Tremsin, J. F. Pearson, J. E. Lees, and G. W. fraser,
Nucl. Instrum. Methods **A368**, 719 (1996).
- [76] *Buckminsterfullerenes* (VCH Oublishers, Inc. , New York, 1993), *ed. by*
W. E. Billups, and M. A. Ciufolini,
– T. G. Schmalz, and D. J. Klein,
Fullerene Structure, p. 83
- [77] S. Liu, Y. Lu, M. M. Kappes, and J. A. Ibers,
Science **254**, 408 (1991).
- [78] K. Hedberg, L. Hedberg, D. S. Bethune, C. A. Brown, M. C. Dorn, R.
D. Johnson, and M. Vries,
Science **254**, 410 (1991).
- [79] H. B. Bürgi, E. Blanc, D. Schwarzenbach, S. Liu, Y. Lu, M. M. Kappes,
and J. Ibers,
Angew. Chem. Int. Ed. Engl. **31**, 640 (1992).
- [80] D. L. Lichtenberger, M. E. Jatcko, K. W. Nebesny, C. D. Ray, D. R.
Huffman , and L. D. Lamb,
Mater. Res. Soc. Symp. Proc. **206**, 673 (1991),
Chem. Phys. Lett. **198**, 454 (1992).
- [81] H. Steger, J. de Vries, B. Kamke, and T. Drewello,
Chem. Phys, Lett. **194**, 452 (1992).
- [82] C. Lifshitz, M Iraqi, T. Peres, and J. E. Fischer,
Rapid Commun. Mass Spectrom. **5**, 238 (1991).
- [83] S. W. McElvany, M. M. Ross, and J. H. Callahan,
Acc. Chem. Res. **25**, 162 (1992).
- [84] G. Javahery, H. Wincel, S. Petrie, and D. K. Bohme,
Chem. Phys. Lett. **204**, 467 (1993).

- [85] D. K. Bohme,
Int. Rev. Phys. Chem. **13**, 163 (1994).
- [86] R. Wörgötter, B. Dünser, P. Scheier, and T. D. Märk,
J. Chem. Phys. **101**, 8674 (1994).
- [87] C. H. Lane, and E. Everhart,
Phys. Rev. **120**, 2064 (1960).
- [88] E. N. Fuls, P. R. Jones, F. P. Ziemba, and E. Everhart,
Phys. Rev. **107**, 704 (1957).
- [89] P. R. Jones, F. P. Ziemba, H. A. Moses, and E. Everhart,
Phys. Rev. **113**, 182 (1959).
- [90] E. Everhart, G. Stone, and R. J. Carbone,
Phys. Rev. **99**, 1287 (1955).
- [91] S. Muramoto, and Y. Yamamura,
Nucl. Instrum. Methods (to be published).
- [92] K. Komaki, A. Ootuka, and F. Fujimoto,
Japanese J. Appl. Phys. **21**, L521 (1982).
- [93] Tersoff,
Phys. Rev. **B39**, 5566 (1989).
- [94] Tersoff,
Phys. Rev. Lett. **61**, 2879 (1988).