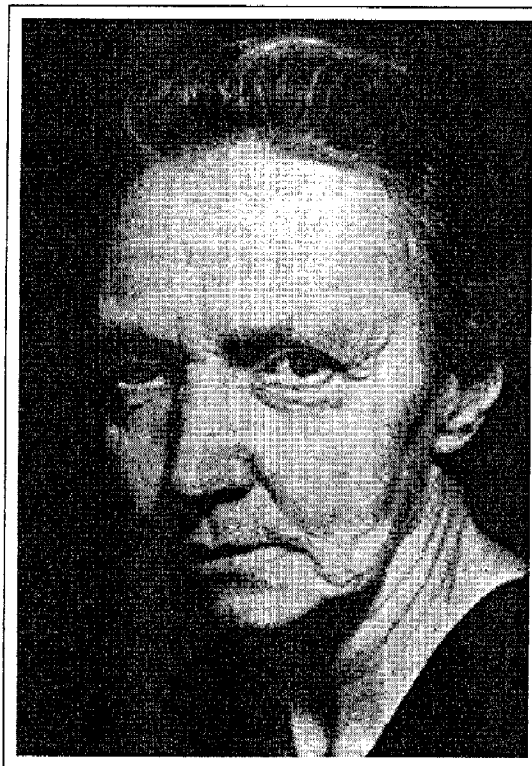


## **“BUT SHE’S AN AVOWED COMMUNIST!” L’AFFAIRE CURIE AT THE AMERICAN CHEMICAL SOCIETY, 1953-1955**

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### **Introduction**

One might have expected that the American Chemical Society (ACS), an organization that claimed to be working for the advancement of chemistry and not using political tests for its membership, would readily accept an application from a Nobel laureate in chemistry. Yet this was not the case with Irène Joliot-Curie in 1953. After some consternation ACS officials rejected her membership application because of her political reputation (strongly linked to the pro-Communist beliefs and activities of her husband, Frédéric Joliot-Curie), informed her of the decision but gave no reasons, and said nothing of their action publicly. When months later her friends questioned and publicized her rejection, the case became a cause célèbre. The extensive commentary and correspondence surrounding the episode make it possible to gauge some contemporary reaction to the wisdom, handling, and significance of this decision. When compared to one of the other anti-communist “witch-hunts” in the United States in the 1940s and 1950s, the public harassment of leading members of the American Association for the Advancement of Science (AAAS), one can see the different reaction. Whereas the AAAS’s board of directors responded stoutly to the anti-communist crusade by electing E. U. Condon and Kirtley Mather presidents (1), the leaders of the ACS refused to elect Madame Joliot-Curie even to membership. “L’Affaire Curie,” as it came to be called, also revealed structural tensions within the ACS between the protective instincts of the members of the Board of Directors and the concern for political liberties among the leaders of some sections. The rank and file readers of scientific publications also revealed a wide range of reactions.



*Figure 1* Irène Joliot-Curie (1897-1956). Shown here late in life, Joliot-Curie shared the Nobel Prize in Chemistry with her husband Frederic in 1935. Intensely apolitical in her early life, she became more involved in French women's, socialist, and pro-Communist movements starting in the late 1930s. (Reprinted from Nuclear Physics 4[1957], p. 497)

## The Facts

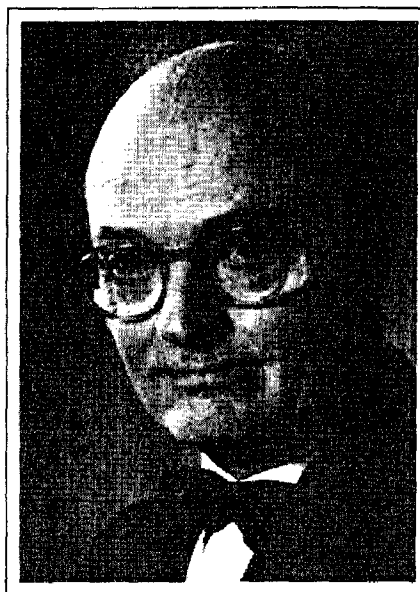
In March, 1953, French chemist and Nobel Laureate Irène Joliot-Curie applied for membership in the ACS, one of the largest scientific associations in the world with 68,000 members, in order, as she claimed, to receive the *Journal of the American Chemical Society* regularly. She filled in the application form and had, as was required, two current members in good standing vouch for her moral character by signing the form. The form did not ask about her political beliefs or affiliations, as the ACS was quite proud that it did not take such factors into consideration. Its admissions committee generally considered credentials like degrees in chemistry as sufficient evidence of an interest in advancing the field. Since the Society claimed that it did not discriminate against applicants on the basis of race, color, religion, or political beliefs, its staff and committee did not investigate these areas (2). But the Society did require that members be of a high moral character. Since the admissions committee could not investigate this aspect of every application, this was to be vouched for by the signatures of two current ACS members, which Joliot-Curie had done.

But, despite her high standing as a chemist (and she was later greatly relieved to learn that the value of her chemical work had never been in doubt), the Committee on Admissions of the ACS rejected her application on July 24, in a letter signed by Norman Bekkedahl of the National Bureau of Standards, the chairman of the committee (3). In September Madame Joliot-Curie wrote Alden Emery, the executive secretary of the ACS, to ask the reason why. (Her friends later told Linus Pauling that she had assumed that they considered her work to be physics rather than chemistry (4). She had been elected to the American Physical Society in November 1950 (5). Emery did not respond, though he could and should have informed her that there was a standard procedure for appeals of admissions decisions (6): she could appeal to the ACS Council's Committee on Membership Standards, which set membership policy and heard appeals. She never pursued this route.

Instead when after a month she had heard nothing from Emery, in October, 1953 a concerned friend of hers, Moise Haissinsky of the Radium Institute in Paris, who had himself in 1950 been refused a temporary visa to attend a meeting in the United States, wrote a letter to the editor of another American journal with a special interest in issues of science and politics, the *Bulletin of the Atomic Scientists* (*Bull. At. Sci.*). Its editor Eugene Rabinowitch notified Emery that he would publish the French letter after January 1, and invited him to respond.

Accordingly Haissinsky's letter appeared in the February, 1954 issue, along with a carefully crafted explanation by Emery, who had been in close communication with several members of the ACS Board of Directors. The *New York Times* had a story about it on February 15, the *Christian Science Monitor* one on February 20, *Time* magazine an item about it on its "People" page February 22, and *Science* reprinted both letters in its March 12 issue (7).

Yet the controversy was not brought to the attention of ACS members until the March 22, 1954 issue of its weekly *Chemical & Engineering News* (*Chem. Eng. News*), when editor Walter J. Murphy published both a statement by the executive committee of the ACS's Board of Directors that supported the admissions committee's action and three letters-to-the-editor on the subject (8). Over the next two months (that is, April and May, 1954) the issue provoked a considerable response in both journals, with 26 more letters to the editors (twelve in support of the action and fourteen in opposition). Finally in the May 17 issue of the *Chem. Eng. News* Murphy called a halt to it, saying that further comment was unlikely to resolve the issue any further (9). Thus ended the first phase.



**Figure 2** Alden H. Emery (1901-1975). After thirteen years at the U. S. Bureau of Mines, he moved in 1936 to the American Chemical Society, where he served in a series of administrative posts, including that of executive secretary from 1947 to 1965. (With the permission of the American Chemical Society)

## The Reasoning

There were several issues involved here. First the timing—the spring of 1953 was the height of a series of congressional committee investigations by the U.S. Senate into communism on American campuses. Several hundred faculty members were being subpoenaed to testify; the hearings were highly publicized; and, as has

been documented recently, administrators at most universities fired their controversial cases as soon as possible rather than rally to any defense of academic freedom (10). Even closer to home—a headquarters in fact—Walter Murphy had fired ACS News Service staff member Robert Norton in April or May, 1953 after he had refused to testify



**Figure 3** Walter J. Murphy (1899 - 1959). Trained as a chemist, he worked for a series of chemical companies before becoming one of the first chemical editors in 1930. He served as editor of *Chemical and Engineering News* from 1943 until his death. (With the permission of the American Chemical Society)

before Senator Jenner's committee (11). Thus Emery and the ACS admissions committee suspected that the pro-communist Madame Joliot-Curie was using them as a kind of timely test case. Not wishing to be so used, they turned her down quietly, did not publicize their decision, and did not respond to her inquiry, possibly in hopes that the problem would go away unnoticed—which it did for a while.

Another factor that rankled the ACS executive secretary was that about this time the Society's committee on publications was introducing a new rate structure for the ACS's several journals. Formerly every ACS member had received *Chemical Abstracts* as well as the *Chem. Eng. News* and the *Journal of the American Chemical Society* (*J. Am. Chem. Soc.*). Now *J. Am. Chem. Soc.* was to have a new rate structure: nonmembers and institutions ("subscribers") were to be charged considerably more than individual members of the ACS (12). Emery and his staff had noticed that they were getting increasing numbers of applications from individual chemists whose companies were anxious to evade the new corporate subscription rate (13). This they suspected Joliot-Curie of doing as well. There was not much the

ACS could do about this, which made the staff angry that they were being taken advantage of. Thus Alden Emery had initially retorted that she did not have to be a member of the Society to get the journals; she could just subscribe to the journal, as did many individuals and laboratories (14), and pay the higher fee.

Thus though technically Joliot-Curie was qualified—she had filled in the form fully and she had obtained the necessary signatures—her timing and various possible ulterior motives also irritated the staff and the Committee did not dare admit her. Yet how would they explain rejecting her? Emery's chief justification for rejecting her was that someone on the Admissions Committee had said that she was an "avowed and active Communist." To admit her might not only cause the Society adverse publicity, but it would also violate the Society's federal charter, a matter of greater concern to the Board of Directors than to the Council. The charter's passage by Congress and adoption by the ACS in 1937 committed the Society to advancing chemistry, improving American industries, and cooperating with the federal government when needed. It thereby also gained the Society a tax exemption (not only from federal taxes, which had apparently been

possible under its previous New York state charter, but also from District of Columbia real estate ones as well as. This was important, since in 1940 the Society purchased and remodeled an apartment house for its headquarters there.) Under the charter the ACS became a corporation whose property was owned and controlled by the Board of Directors and it was required to report annually to the U. S. Con-



**Figure 4** Charles A. Thomas (1900-1982). After coming to Monsanto in 1936 he held a variety of executive posts including its presidency. In 1948 he was president of the ACS and a member of the board of directors in 1950-53, where he was its chairman in 1953 when Joliot-Curie applied for membership. (With the permission of the American Chemical Society)

gress (15). Yet citing the federal charter was a new factor in admission decisions, for the federal charter had not stopped the Society from admitting foreign members before. In fact, as Rabinowitch pointed out in an editorial on the subject in March, 1954, many American learned societies and professional organizations already had foreign and even Soviet members (16). (The 1951 membership directory of the ACS listed 2,908 foreign members of 64,241 individuals with 88 from France, 71 from eastern Europe, 22 from China, and none from the Soviet Union (17).) But as no one knew or had inquired about their political views, their continued membership was not thought to threaten the Society or violate the charter the way publicly electing even a suspected Communist to the ACS would in 1953.

In early March, 1954, as word of the episode spread but before the *Chem. Eng. News* provided more of the details, S. C. Lind, a former (1940) ACS president, long at the University of Minnesota but now a consultant at the Oak Ridge National Laboratory, wrote the recent president Farrington Daniels of the University of Wisconsin, asking why the Board of Directors had been consulted and not the Council's Committee on Membership Standards, which set criteria for admissions and to which the committee on admissions usually reported. He saw this as one more example of the Board's encroachment upon the Council, which had before 1937 governed the society. Lind thought that under the circumstances losing the federal charter might be a blessing, as he was sure that in this case the Council would have made a better decision than the Board had (18). Daniels was taken aback, since in the haste and panic of the crisis no one had pursued this procedure. [In November, 1953, Emery had mentioned it as one possibility but did not object when Daniels and others wanted to consult with the Board, which was small, would be meeting soon, and had in the past dealt with other touchy issues, as Linus Pauling's passport denial in 1952 (19).] Yet this very bypassing of normal procedures to gather support from the elders of the society rather than the more representative and less predictable Council shows just how worried the ACS leaders felt.

In its March, 1954, statement published in the *Chem. Eng. News*, the executive committee of the Board of Directors fell back on the nuance that membership in the ACS was an honor and not a right. Thus someone known (however it was determined and whether accurate or not) to be committed to the overthrow of the federal government could not be accepted. To admit such a person would, they feared, endanger the Society's very existence. Rejecting Irène Joliot-Curie's application also

offered the advantage that it could be done quietly, or, as statement by the executive committee of the Board of Directors explained, it was standard Society policy to keep the names of persons denied membership private, as it would hurt them unnecessarily to publish them and would open the society to possible slander action (20). Yet Irène Joliot-Curie did not acquiesce to such silence and outmaneuvered both the ACS committee and the board. In fact if her goal had been revenge by exposing the officials' narrow-mindedness, she must have been gratified with the response both privately (for many chemists wrote their sentiments either directly to her (21) or to the ACS and its officers (22) and publicly in the pages of the *Chem. Eng. News*, the *Bull. At. Sci.*, and the newsletters of two important ACS sections.

### The Response

A few of the published letters expressed irritation, as one might have expected, about the ACS's delay and procedures in not informing its own members more directly about an action by their own governing boards. The episode had all the signs of a "cover up" finally exposed months later. Rabinowitch deplored the decision and noted in the *Bull. At. Sci.* that the ACS would receive much adverse publicity in the pro-Soviet press, as still more proof of the intolerance of America's so-called democratic institutions (23).

Beyond this, on the whole, the letters Murphy printed in the *Chem. Eng. News* were about evenly divided as to the Committee's action. Those in agreement with the rejection of Joliot-Curie offered a variety of arguments. [One suggested that anyone who did not believe in God should not be a member of the ACS (24).] Chiefly many fervently believed that the Communist Party was not the usual sort of political party that Americans who believed in democratic institutions were used to. Communism was instead a potent even subversive political belief system. (The Supreme Court upheld this view as late as 1959.) If even one well-known Communist were to be elected to the ACS, the other 68,000 members would also be immediately suspect. This political contamination (she did work on radioactivity!) might bring the whole organization under scrutiny, congressional or otherwise, as a hotbed of communism. Then all members would be labeled as potentially subversive, for how could anyone prove that he/she was not a communist, especially when the real communists were under strict party discipline and known to lie when necessary, even under oath (25). It was thus the duty of the members, as represented by its vigilant Committee on Admissions, to protect the good name of the ACS by

rejecting Joliot-Curie, Nobel laureate or not, and the presumed internationality of science notwithstanding (26).

The critics were less fearful and more procedurally minded, pointing out that 1) the Committee on Admissions had no official information on her or any applicants' political beliefs, which were in any case, not permissible criteria for exclusion; 2) as she could not under prevailing conditions get a visa to enter the United States, she was very unlikely ever to come to a meeting; and 3) the ACS committee could not vouch for the Americanism of any of its current members—there might well be many Communists among them already. Paul Flory then of Ithaca, New York, an outspoken advocate of political freedom and himself later a Nobelist, suggested that someone should, in fact, investigate the loyalty of those voting to exclude Madame Joliot-Curie (27)! Others argued that whether or not communism was a subversive philosophy, Joliot-Curie was no threat to other members, precisely because her leftish political beliefs were so well known. One such person was such a small proportion of the whole immense and diverse ACS that she hardly mattered. David Todd of Shrewsbury, Massachusetts, one of her staunchest and most persistent defenders, asserted that she should not be confused with T. D. Lysenko, who held and enforced distorted scientific views in the USSR (28). The real danger to the society was from secret Communists, who would lie about their affiliations and beliefs, if asked, anyhow. Several ACS members reportedly resigned over the incident, including nuclear chemist Charles D. Coryell of the Massachusetts Institute of Technology (29). [If he did resign, he rejoined later, because he was listed in the ACS membership directory for 1956. He also won a prize from the ACS in 1960 and spent a year at the Radium Institute in 1963 (30).]

In retrospect the most judicious immediate reaction to the episode was the editorial on "The Chemist and the Communist" in the April, 1954 issue of the *Chemical Bulletin*, the newsletter of the Chicago section, third largest, of the ACS. Its editor Robert N. Feinstein, an assistant professor of biochemistry at the University of Chicago and so probably known to Eugene Rabinowitch, said that the whole affair had been badly handled. He summarized the dilemma succinctly, "Mr. Emery's statement is reasonable and understandable. And still we deeply regret it." Adding that "We are not here in any way condoning communism," he claimed that because the Society did not consider race, color, creed, or political views as criteria for membership and already had many other foreign members, "We can only regret with all our heart that the American Chemical

Society, by its rigidly conformist interpretation of a debatable section of the ACS Charter, has been instrumental in drawing just a tiny bit tighter the band of continuing encroachments on our sphere of free activities" (31). Endorsing these sentiments, Rabinowitch reprinted the editorial in the June 1954 issue of the *Bull. At. Sci.*, along with several other letters to the editor and a summary of those in the *Chem. Eng. News* (32).

Thus most of the discussion did not revolve around any practical fear of how her ideas or physical presence might threaten members of the society or the field of chemistry. It was generally in the political realm of what the welcoming of a known Communist in 1953 or 1954 would do to the Society's political fortunes, legal standing, and reputation, a greater concern to most of



**Figure 5** Farrington Daniels (1889-1972). On the faculty at the University of Wisconsin from 1920 to 1959, he won numerous awards and was president of the ACS in 1953 when the cause celebre unfolded. (With the permission of the American Chemical Society)

the society's officers (whose presidents Arnold Thackray has termed an "elite gerontocracy") than to the more populist members of some of the local sections (33). Rather than feeling strong enough to stand up to outside criticism and select members solely on their scientific fitness, the society's leaders, nearly unanimously (34), felt the need to reaffirm their patriotism—her application had even put their own loyalty under suspicion. Yet ironically far from protecting the integrity and internationality of science at a time of danger, the actions of the ACS staff and leadership seem to have, as one critic pointed, out dropped to the level of the Communists themselves. If a Nobel laureate in chemistry could be excluded from an American society presuming to advance that field, then the integrity of many other American scientific organizations was also put into serious doubt (35).

## Aftermath

"L'Affaire Curie," as Rabinowitch dubbed it, dragged on into 1955. In August, 1954 the editor of the *Chem. Eng. News* broke his own earlier ban on the topic by printing a letter from Irène Joliot-Curie to David Todd, who in his efforts to guide the discussions of the issue in the Central Massachusetts section (Worcester), had inquired directly if she had told the ACS admissions committee that she was a member of the Communist Party. She replied that she was not a member, but added that this was a mere technicality as she believed totally in its tenets and her husband was an active member. She then expatiated on how hard she personally strove to overlook other scientists' political views, how warmly she welcomed scientists of all nations (including even the United States) into her laboratory, and how deplorable she felt the recent behavior of the ACS was, coming as it did from fellow scientists, who should be above such things. The *Bull. At. Sci.* reprinted her letter in October, 1954 (36). In it she did not mention that since 1949 she and her husband had been urging Chinese scientists to convince Chairman Mao Zedong's communist regime to build atomic and hydrogen bombs (37).

Meanwhile Alan C. Nixon, a research chemist at Shell Research and Development Center at Emeryville, Chairman of the California section of the ACS, headquartered then in nearby Berkeley, and in the 1970s an ACS president in his own right, kept the issue of Joliot-Curie's exclusion alive in *The Vortex*, the section's monthly journal, throughout 1954. Already known for his liberal views, he thought it was an outrage that she had been rejected and kept pressing the national leadership for more specific reasons. He also engaged Berkeley professor Joel C. Hildebrand, a prominent member and former chairman of the California section as well as the incoming president of the ACS, in several exchanges on the matter in *The Vortex* (38).

Hildebrand was no stranger to such issues, since a few years earlier as dean of the University of California's College of Chemistry he had had to deal with the thorny issue of the Regents loyalty oath. In the spring of 1950 he had even chaired the faculty advisory committee on the issue for the three northern campuses (Berkeley, San Francisco, and Davis) to President Sproul. When he urged recalcitrant faculty members to sign the revised oath, he emerged as an accommodater and compromiser rather than a diehard political purist (39).

In the course of his correspondence with on the one hand the liberal Alan Nixon and on the other with the illiberal ACS staff, Hildebrand struggled with the issues and dangers. Basically he worried less about the federal

charter than had Emery and more that if Madame Joliot-Curie were accepted for membership, she would be able to vote for future ACS officers. Finally in December, 1955 he proposed that the ACS Council and Board of Directors should revise the organization's current constitution to strike a compromise of sorts. The National Academy of Sciences, of which he was also a member, and which also had a federal charter, had foreign members who did not vote for the officers. It thus managed to look international but did not jeopardize its national interests in allowing the foreigners a chance to control the organization. Thus the ACS could do likewise—elect foreign members, whose political loyalty and moral character could not be vouched for, to non-voting membership status. They could then be members and get the journals at the reduced rate, but there would be no chance of their taking over the leadership (40). Thus the ACS began to develop a more open approach to international members, whose numbers were growing rapidly, including 358 applications from Japan alone in 1955 (41). In 1956 it even had one member from the Soviet Union, Anatoli Kreshkov (42).

But by the time the ACS had revised its membership rules, the woman who had started all the fuss had taken to her bed with her final illness. Irène Joliot-Curie died from leukemia in March, 1956 (43).

## Analysis and Conclusion

Beneath the particulars of this case are several underlying issues relating to the role of scientific societies in the 1950s: in tying subscription rates to ACS membership status, they could to a certain extent control access to inexpensive scientific information; in choosing some but not other foreign members, they could shape the internationalization of chemistry; in withholding information on association activities, they could protect their leaders from criticism; while in publishing letters-to-the-editor they could air the members' differing political views.

Yet this was a highly unusual case. Most studies in the growing literature on "McCarthyism" in science focus on the harassment of American scientists, especially those in the physical sciences, and including, perhaps even featuring, many very eminent ones, as Nobel laureates, by both political figures, as congressmen, federal bureaucrats, especially passport officials and grants officers, who are usually not scientists, and university administrators, a few of whom were former scientists, even chemists (44). As these accounts document the imposition of loyalty oaths, the denials of federal grants, the withholding of passports, the issuing of subpoenas

to testify before congressional committees, and even job suspensions and firings, they usually have the flavor of pitting the "Davids" (like Condon or J. Robert Oppenheimer) against the "Goliaths" (the government officials or university administrators) (45). "L'Affaire Curie" was an unusual and more disturbing case in that here a scientist—a foreigner as well as a woman and a Nobelist—was rejected not by narrow-minded American bureaucrats [though she had been detained overnight at Ellis Island by State Department officials in 1948 when she came to the United States on a lecture tour(46)] but by her fellow chemists, the officers (all male and no Nobelists) of the ACS, for mere membership in their scientific organization. She in turn was quite angry at her fellow scientists, whose behavior reflected narrow chauvinism and even political cowardice rather than the lofty ideals of science, while at the same time limiting her access to certain valuable informational resources.

Yet in the complex world of American science in the 1950s, the leaders of this one scientific society—admittedly a large one with substantial resources and particularly close ties to the nation-state via its charter and tax-exempt status—felt that they had to protect the best interests of both their society and American chemistry and thus had to accede to prevailing political realities. What may have been different about this case was that, unlike the untold numbers of others that were successfully covered up, Madame Joliot-Curie was able to bypass her censors and bring it to public attention, thus revealing the wide structural and ideological divisions among American chemists. Perhaps the biggest surprise was that she got as much public and private support as did.

## REFERENCES AND NOTES

1. Wang, "Science, Security, and the Cold War: The Case of E. U. Condon," *Isis*, 1992, 83, 238-69; D. Wolfe, *Renewing a Scientific Society, The American Association*, AAAS, Washington, DC, 1989, 16-20, 44-45, and 283-84n14; and K. B. Bork, *Cracking Rocks and Defending Democracy: Kirtley F. Mather*, AAAS, Pacific Division, San Francisco, CA, 1994.
2. The ACS's executive secretary Alden Emery, however, revealed that one of his staff members periodically showed a list of foreign applicants to the scientific attaché of the relevant embassy to find out what he knew about the individuals involved. ("Membership-Foreign," American Chemical Society Papers, Box 26, Manuscript Division, Library of Congress, Washington, DC). The extent of the ACS's ties to the State Department is not clear.
3. On his way to the dedication of the Weizmann Institute in Israel in October 1953, Linus Pauling visited Madame Joliot-Curie in Paris. She showed him her rejection letter, and he wrote Farrington Daniels of the University of Wisconsin and President of the ACS, urging him "to rectify this without delay" (Linus Pauling to Farrington Daniels, October 28, 1953, in Farrington Daniels Papers (#7/6/14-2) at the University of Wisconsin Archives, Madison. Much of the correspondence in the Daniels Papers refers to items deliberately omitted from the official minutes of the meetings of the ACS Board of Directors. Pauling referred to the incident again in a letter to David Todd, October 19, 1959; Linus and Helen Pauling Papers, Oregon State University Library, cited in T. Hager, *Force of Nature, The Life of Linus Pauling*, Simon & Schuster, New York, 1995, 435. It is also of interest that Bekkedahl won a meritorious service award from the besieged Commerce Department in 1954 (*American Men of Science [AMS]*, 12th ed. 1971, vol. 6, 390).
4. Linus Pauling to Farrington Daniels, December 17, 1953, quoted in O. B. Daniels [with considerable help from Anthony Stranges], "Farrington Daniels, Chemist and Prophet of the Solar Age. A Biography," typescript, 1978, 287, copy at University of Wisconsin Archives. I thank Anthony Stranges for telling me of this.
5. *Ibid.*, p. 285n11.
6. Alden Emery to Farrington Daniels, November 6, 1953, Box 5 ("Joliot-Curie Controversy, 1953"), Daniels Papers.
7. M. Haissinsky to Editor, *Bull. At. Sci.*, February, 1954, 10, 56; "U. S. Chemists Bar Mme. Joliot-Curie," *New York Times*, February 15, 1954, 10:1; R. C. Cowen, "Chemical Society Faces Joliot-Curie Controversy," *Christian Science Monitor*, February 20, 1954, 5:3; "People," *Time*, February 22, 1954, 48:1; "Science News," *Science*, March 12, 1954, 119, 340-41. See also H. Skolnik and K. M. Reese, *A Century of Chemistry, The Role of Chemists and the American Chemical Society*, American Chemical Society, Washington, DC, 1976, 42-43, who called it "the most acrimonious debate of the 1950s." It is disturbing that almost all we know about the history of the ACS comes from histories that it commissioned. The three to date make it one of the most written about of scientific societies, however.
8. "Board of Directors' Statement on Election to Membership in the ACS," *Chem. Eng. News*, March 22, 1954, 32, 1146. The chairman of the Board of Directors in 1953, when the statement was drafted, was Charles A. Thomas, President of the Monsanto Company of St. Louis. Among the other members of the Board were John C. Warner, President of the Carnegie Institute of Technology, Ralph Connor, Vice-president for Research at Rohm and Haas, Raymond Kirk, Dean of the Graduate School at the Polytechnic Institute of Brooklyn, and Arthur C. Cope, Chairman of the Chemistry Department at the Massachusetts Institute of Technology. (H. Skolnik and K. M. Reese, *op. cit.*, 395).

9. "Letters—Joliot-Curie Membership," *Chem. Eng. News*, May 7, 1954, 32, 1966.
10. For example, E. W. Schrecker, *No Ivory Tower, McCarthyism at the Universities*, Oxford University Press, New York, 1986; S. Diamond, *Compromised Campus The Collaboration of Universities with the Intelligence Community 1945-1955* Oxford University Press, New York, 1992.
11. Ernest H. Volwiler to Walter J. Murphy, May 8, 1953, in Farrington Daniels Papers, Box 1 ("ACS Board of Directors").
12. For example, "Subscription Rate Increase I," *Chem. Eng. News*, 1955, 33, p. 2836. See also R. Shank, "Physical Science and Engineering Societies in the United States as Publishers, 1939-1964," unpublished D.L.S. dissertation, Columbia University, 1966; and R. G. Lerner, "The Professional Society in a Changing World," *Library Quarterly*, 1984, 54, 36-47.
13. See especially Alden Emery to K. K. Darrow, October 29, 1952, Box 25, American Chemical Society Papers, for a complaint that members are abusing their right to get copies of *Chemical Abstracts*. Other material in Boxes 25 and 26 is relevant to the Joliot-Curie affair and its aftermath, but the collection is far from complete and perhaps even more notable for what is not there. Some memos, for example, contain cross-references to files (such as "Joliot-Curie, I., Reactions Unfavorable") that are not present.
14. Alden Emery, "Letters to the Editor," *Bull. At. Sci.*, February 1954, 10, 56.
15. "An Act to Incorporate the American Chemical Society," U. S. Statutes at Large, 75th Congress, 1937, 50, Pt I, 798-800. See also H. Skolnik and K. M. Reese, *op. cit.*, 24-26, and "Federal Charter Strengthened ACS Role on the National Stage," in J. L. Sturchio and A. Thackray, "Chemistry and Public Policy," *Chem. Eng. News*, March 9, 1987, 65, 22-23. (I thank Jeffrey Sturchio for this reference and other helpful advice.)
16. E[ugene] R[abinowitch], "The American Chemical Society and Madame Joliot-Curie," *Bull. At. Sci.* March 1954, 10, 67. For obituaries of Rabinowitch see *New York Times*, May 16, 1973, 50 and *Bull. At. Sci.*, June 1973, 29, 3, and "A Voice is Stilled," *ibid.*, 4-12 for excerpts from eulogies.
17. "Summary of Geographical Distribution," *American Chemical Society Diamond Jubilee Directory, 1951*, ACS, Washington, DC, 1951, n.p.
18. S. C. Lind to Farrington Daniels, March 3, 1954, Daniels Papers, Box 5. Lind: *AMS*, 10th ed., 1961, 4, 2429.
19. Alden Emery to Farrington Daniels, November 6, 1953, Daniels Papers, Box 5, and Alden Emery to Farrington Daniels, June 10, 1952, Box 1.
20. "Board of Directors; Statement on Election to Membership in the ACS," *Chem. Eng. News*, March 22, 1954, 32, 1146.
21. N. Loriot, *Irène Joliot-Curie*, Presses de la Renaissance, Paris, 1991, 285.
22. Also in the Daniels Papers (Box 5) is a list of "Members who protested [privately to the ACS the] action on Madame Joliot-Curie's application" with 15 names and the national and Philadelphia chapter of the American Association of Scientific Workers, but their actual letters are not there. The only one of the fifteen who also had a letter published in *Chem. Eng. News* or *Bull. At. Sci.* was David Todd. Listed were G. B. Carpenter, Providence, RI; G. S. Christiansen, New London, CT; H. T. Clarke, NYC; W. Cohn, Oak Ridge, TN; M. Heidelberger, NYC; R. J. M. Henry, Cambridge, MA; A. I. Kosak, NYC; D. B. Luten, Berkeley, CA; R. M. Noyes, NYC; W. A. Noyes, Jr., Rochester, NY; A. M. Pappenheimer, Jr., NYC; J. E. Snow, Hasbrouck Heights, NJ; W. J. Stewart, Pittsburgh, PA; D. Todd, Shrewsbury, MA; and V. Weinmayr, Landenberg, PA. Their entries in the *AMS* (Stewart was the only one not listed) show a high proportion of biochemists and radiochemists with many Fulbright and Guggenheim awards among them. They thus might represent a more liberal and international and less industrial orientation than did the members of the Board of Directors and a more elite and academic fraction than the writers of letters-to-the-editor, eleven of whom were not listed in the *AMS*. This list is far from complete, however, for others not on this list wrote directly to Daniels, as S. C. Lind in n17 above, and W. J. Sparks of the Standard Oil Company of New Jersey, who said that under no legal system of which he was aware were wives to be held accountable for their husband's indiscretions (n.d., Box 5). Both he and his wife Meredith were members (*AMS*, 11th ed., 1967, 5, 5068).
23. E. Rabinowitch; see Ref. 16.
24. H. B. Kreider, Jr., Gilsonia, PA, "Letters," *Chem. Eng. News*, May 17, 1954, 32, 1968.
25. G. V. Caesar, Harbor Beach, MI, "Letters—Decision on Joliot-Curie," *ibid.*, April 19, 1954, 32, 1542.
26. S. E. Marugg, Philadelphia, "Letters—Decision on Joliot-Curie," *ibid.*, April 19, 1954, 32, 1542.
27. P. J. Flory, "Letters," *ibid.*, May 17, 1954, 32, 1966.
28. D. Todd, Shrewsbury, Massachusetts, "Letters," *ibid.* April 19, 1954, 32, 1546 and 1548.
29. Ref. 21.
30. *American Chemical Society, Directory of Members, 1956*, ACS, Washington, DC, 1956, 150. Coryell had also been secretary-treasurer of the Federation of Atomic Scientists in 1952 (*AMS*, 11th ed., 1965, 1001); "Dr. Charles D. Coryell," *Chem. Eng. News* April 18, 1960, 38, 73; "Deaths—Charles D. Coryell," *ibid.*, January 25, 1971, 49, 56; and "Coryell, Charles DuBois," *National Cyclopedia of American Biography* 1975, 56, 472-73. Some of his work had been classified research for the federal government.
31. R. N. F., "The Chemist and the Communist," *Chem. Bull.*, April, 1954, 41, (4), 5 and 7. There were responses (generally negative) in the May, June, and September issues. In 1959-60 Feinstein had a Guggenheim fellowship to



- the Radium Institute in Paris (*AMS*, 11th ed., 1965, vol. 2, 1501).
32. "L'Affaire Curie," *Bull. At. Sci.* June 1954, 10, 211-14. One contributor to the *BAtS* discussion, psychologist Mary Mercer of Minnesota, suggested another possible solution: it would have been easier on everyone involved if the ACS had had a fund with which to send journals to controversial people like Irène Joliot-Curie at no charge. ("Bulletin Readers React," *ibid.*, 212.)
  33. A. Thackray, J. L. Sturchio, P. T. Carroll, and R. Bud, *Chemistry in America 1876-1976* D. Reidel Pub. Co., Dordrecht and Boston, 1985, 188 and 189. The ACS Board of Directors was a nursery for future presidents.
  34. Farrington Daniels, who had met the Joliot-Curies in Paris in 1928, was of two minds on the issue, writing even before Madame Joliot-Curie had been rejected that in the short run there would be more criticism for accepting her than for rejecting her, but that in the long run they would find that admitting her would have been the right thing to do. (Farrington Daniels to Alden Emery, July 6, 1953, Daniels Papers, Box 5). He opposed the decision at the time but then worked with Emery, ACS lawyer Elisha Hanson, and the other members of the executive committee of the Board to put the society's action in the best light possible. After hearing from S. C. Lind in early March, 1954, he wished he had opposed her rejection more vigorously. (O. B. Daniels, "Farrington Daniels, Chemist and Prophet of the Solar Age, A Biography," 285-91.)
  35. H. O. Albrecht, Springfield, PA, "Bulletin Members React," *Bull. At. Sci.*, June 1954, 10, 212; J. W. Beckman, Oakland, CA, "Letters," *Chem. Eng. News*, April 19, 1954, 32, 1544.
  36. Irène Curie to David Todd, *Chem. Eng. News*, August 2, 1954, 32, 3026, reprinted in *Bull. At. Sci.* October 1954, 10, 335.
  37. J. W. Lewis and X. Litai, *China Builds the Bomb*, Stanford University Press, Stanford, CA., 1988, 36.
  38. "Alan C. Nixon Chairman for 1954," *The Vortex*, January, 1954, 15, 5; A. C. Nixon, "Chairman's Message, ACS=American Communist Society?" *ibid.*, April, 1954, 147 and 162; *idem*, "Chairman's Message, Madame is Still Here," May, 1954, 187; C. O'Konski, "Minutes of Executive Committee Meeting," May, 1954, 211; J. H. Hildebrand, "A Letter to the Chairman," *Vortex*, June, 1954, 223; A. C. Nixon, "Chairman's Message, Answering the Mail," *ibid.* June, 1954, 225 and 285; C. O'Konski, "Minutes of the General Meeting," *ibid.*, September, 1954, 294; A. C. Nixon, "Chairman's Message," September, 1954, 303; and "Membership Requirements," October 1954, 362 and 364, reprinting a recent letter from J. Hildebrand to A. Nixon.
  39. D. P. Gardner, *The California Oath Controversy*, University of California Press, Berkeley, CA, 1967, 47; more recently, N. K. Innis, "Lessons from the Controversy over the Loyalty Oath at the University of California," *Minerva*, 1992, 30, 337-65; and J. H. Hildebrand, "The Professor and His Public," *Chem. Eng. News*, November 24, 1952, 30., 4934-37, reprinted in *Bull. At. Sci.*, February, 1953, 9, 23-25.
  40. J. Hildebrand to Alden Emery, December 27, 1955, ACS Papers, Box 26. The Joel Hildebrand Papers, his biographical file, and two oral histories of him at the Bancroft Library, University of California, Berkeley, are not helpful. Emery may have learned from the episode, for when in 1961 he was awarded the Gold Medal of the American Institute of Chemists, its citation mentioned his "exceptional intelligence, tact, vision, and responsiveness to the desires of the members." ("Former ACS staff chief dead at 73," *Chem. Eng. News*, March 24, 1975, 53, 7.)
  41. ACS Papers, Box 25. By then the country with the largest number of foreign members of the ACS was Japan with 1,019 up from just 18 in 1951. This was considerably more than the 701 from Canada and almost as many as from Wisconsin (1,089). (*American Chemical Society, Directory of Members, 1956* ACS, Washington, DC, 1956, 1163-4).
  42. *Ibid.* 1131.
  43. "Mme. Joliot-Curie is Dead in Paris," *New York Times*, March 18, 1956, 89:1; J. Chadwick, "Obituary, Mme. Irène Joliot-Curie," *Nature*, May 26, 1956, 177, 964-5; F. Perrin, "Irène Joliot-Curie," *Dictionary of Scientific Biography*, 157-59; O. S. Opfell, *The Lady Laureates, Women Who Have Won the Nobel Prize*, 2nd ed., Scarecrow Press, Metuchen, NJ, 1986, 195-212; *Current Biography Yearbook, 1940*, 435-36; Ref. 21; and B. Bensaude-Vincent, "Star Scientists in a Nobelist Family: Irène and Frédéric Joliot-Curie," in H. Pycior, N. Slack, and P. Abir-Am, Ed., *Creative Couples in the Sciences*, Rutgers University Press, New Brunswick, NJ, 1996), 57-71.
  44. See Ref. 33, Table 6.5, pp. 394-6, for a list of chemists who became college and university presidents before 1959.
  45. For example, M. D. Kamen, *Radiant Science, Dark Politics, A Memoir of the Nuclear Age*, University of California Press, Berkeley, CA, 1985, 213-14; and n1 above.
  46. Mentioned in "U.S. Chemists Bar Mme. Joliot-Curie," *New York Times*, February 15, 1954, 10:1.

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