'Perfumery radar' brings order to odors

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Scientists are announcing development and successful testing of the first "perfumery radar (PR)." It's not a new electronic gadget for homing in on the source of that Eau de Givenchy or Jungle Tiger in a crowded room. Rather, PR is a long-awaited new tool for bringing scientific order to the often arbitrary process of classifying the hundreds of odors that make-up perfumes. A report on the advance appears in ACS' journal *Industrial & Engineering Chemistry Research*.

Alírio Rodrigues and colleagues note that the typical perfume has 50-100 fragrant ingredients. Experts who make perfumes have long described those ingredients with highly subjective terms like "floral," "citrus," "woody," and "oriental." Many different classification systems have been proposed, but they still leave perfumers describing the same smell with different words that often are arbitrary.

In an effort to bring order to odor classification, the scientists developed "perfumery radar" system, which relies on plots (see graphic), similar to the displays used to track aircraft. They used the PR to classify the primary odor families of 14 commercial perfumes and found that the results closely matched those of experienced perfume makers. With the PR, manufacturers could speed up the development of new perfumes — namely the so-called preformulation stage in which they experimentally evaluate the product — thus saving time and money, the report states.

More information: "Perfumery Radar: A Predictive Tool for Perfume Family Classification", *Industrial & Engineering Chemistry Research*.