

# Chemistry in art, art in chemistry, and the spiritual ground they share

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Chemistry is an essential tool for making art. We will begin by looking at the evolution of pigments for one color, clearly an object of our desire, in the artist's palette, from the Gate of Ishtar to Prussian blue and modern pigments. And at photography, a very chemical enabling tool for artists. Then we will turn to art in chemistry. The pages of my articles, those of my colleagues, are filled with drawings of molecules. From a certain reality, which, like all realities, turns out to be on close examination a representation of one, the creators of these drawings try to abstract the essence. Significant formal considerations — the relationship of the parts of a molecule to its whole — are essential. That sounds pretty close to art. On to the spiritual ground which an art and a science that has creation at its heart share. Alchemy is one; I will discuss what attracts artists to alchemy, and how alchemical goals resonate in modern chemistry. And then take a wild leap to modern times, by posing a question that at first sight seems absurd: Is there an analogue in science to abstract art? If abstraction wants to be seen as alternative to naturalistic representation and the figurative, what can chemistry possibly be against? Nature, of course. With interesting consequences. Another aspect of abstraction has been the concentration on one or another component of the artistic whole. Issues of form — at the center or the periphery, inclusion or exclusion, see-through or opaque, balance, color — are isolated. Mark Rothko's color fields are a fine example of this concentration. We'll explore chemical analogues of such concentrated isolation, also look at the way modern chemistry gives the aleatory its due. I will work against the caricature of abstract art and science as... cold. In chemistry and art both, we create and discover meaning.