

Analysis: Part B Group Discussion

Excerpts from the book	Group discussion questions	Group answers/conclusion
<i>Now I had to distill [benzene] a second time in the presence of sodium.</i>	A distillation separates one substance from another. Why would he do it twice? What might the sodium do?	
<i>It [sodium] is not shiny or, better, it is shiny only if preserved with maniacal care, since otherwise it reacts in a few instants with air, covering itself with an ugly rough rind.</i>	What reaction takes place? What are the products? How must sodium be stored?	
<i>[Sodium] reacts with water, in which it floats (a metal that floats!).</i>	Why does sodium float on water? What reaction takes place?	
<i>[Potassium] is sodium's twin, but it reacts with air and water with even greater energy.</i>	Why does the author consider potassium and sodium as "twins"? Why does potassium react with more energy than sodium? (Look at a periodic table)	
<i>In contact with water it [potassium] not only develops hydrogen but also ignites.</i>	Is it correct to say that potassium ignites?	
<i>I placed it [the residue of potassium] on a piece of dry filter paper, wrapped it up in it, went down into the Institute's courtyard, dug out a tiny grave, and buried the little bedeviled corpse.</i>	What is the proper way to dispose of an excess of potassium?	
<i>Adhering to the glass of the flask there must have remained a minuscule particle of potassium, all that was needed to react with the water I had poured in and set fire to the benzene vapors.</i>	Why did a fire begin in the flask? What was the immediate cause of this fire?	
<i>By looking closely, one could see, barely visible, a tiny white fleck. I tested it with phenolphthalein: it was basic, it was potassium hydroxide. The guilty party had been found...</i>	What is the nature of potassium hydroxide? In the episode described, was the potassium hydroxide formed only during the cleaning of the flask?	
<i>Sodium is almost the same as potassium, but with sodium nothing would have happened.</i>	Is it correct to say that with sodium nothing would have happened?	

Conclusion: