

Iran claims new uranium enrichment success


Iran has produced its first batch of uranium enriched to a higher level, according to President Mahmoud Ahmadinejad. The claimed level of 20 percent enrichment would put Tehran a relatively short step away from possessing weapons-grade material

1 Naturally-occurring uranium

Mined from earth's crust

comprises just 0.7% of **U-235** isotope needed to make nuclear weapon – remainder is mostly **U-238** isotope which must be removed

For example, if large circle represents 1,000 uranium atoms...

 *small circle is seven U-235 atoms*

3 Highly-enriched uranium

Iran wants 20% enriched fuel for use in **Tehran Research Reactor**



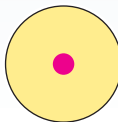
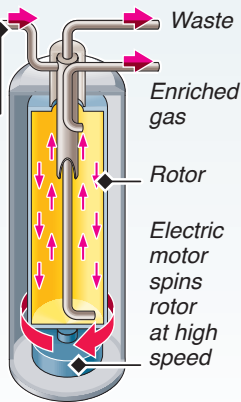
20% enrichment – 165 non-U-235 atoms removed

2 Low-enriched uranium

Iran has already enriched uranium to 3.5% for its power stations

Uranium hexafluoride gas fed to centrifuge

Centrifugal force causes heavier U-238 to move closer to wall – lighter U-235 rises and is drawn off



3.5% enrichment – 800 non-U-235 atoms removed

4 Weapons-grade uranium

By enriching uranium to 20%, Iran will have done almost all work required to reach 80%



80% enrichment – only 26 non-U-235 atoms to be removed

