1633 Chimay

1633 Chimay, provisional designation 1929 EC, is a Themistian asteroid from the outer region of the asteroid belt, approximately 37 kilometers in diameter.

It was discovered on 3 March 1929, by Belgian astronomer Sylvain Arend at the Royal Observatory of Belgium in Uccle.[13] Five nights later, the body was independently discovered by Max Wolf at Heidelberg Observatory in southern Germany.[2] It was later named for the Belgian town of Chimay.[2]

Contents

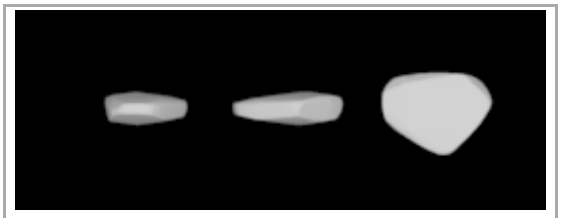
Classification and orbit

Chimay is a member of the Themis family, a dynamical family of asteroids with nearly coplanar ecliptical orbits. It orbits the Sun in the outer main-belt at a distance of 2.8–3.6 AU once every 5 years and 9 months (2,085 days). Its orbit has an eccentricity of 0.12 and an inclination of 3° with respect to the ecliptic.[1] *Chimay* was first identified as A917 BB at Heidelberg in 1917, extending the body's observation arc by 12 years prior to its official discovery observation.[13]

Physical characteristics

Several rotational lightcurves were obtained from photometric observations. Lightcurve analysis gave a well-defined, concurring rotation period of 6.58–6.63 hours with a brightness variation between 0.31 and 0.58 magnitude (U=3/3-/2).[8][9][10][11][14]

1633 Chimay



Lightcurve based 3D-model of *Chimay*

Discovery [1]	
Discovered by	S. Arend
Discovery site	Uccle Obs.
Discovery date	3 March 1929
Designations	
MPC designation	(1633) Chimay
Named after	Chimay (Belgian town)[2]
Alternative designations	1929 EC · 1941 KF 1946 HC · 1948 RO 1951 AM · 1952 HY_3 1954 SS · 1955 XN 1972 VM_1 · A917 BB
Minor planet category	main-belt · Themis [3]
Orbital characteristics [1]	
Epoch 4 September 2017 (JD 2458000.5)	
Uncertainty parameter 0	
Observation arc	100.02 yr (36,531 days)
Aphelion	3.5907 AU
Perihelion	2.7980 AU
Semi-major axis	3.1943 AU
Eccentricity	0.1241
Orbital period	5.71 yr (2,085 days)
Mean anomaly	237.33°
Mean motion	$0° 10^m 21.36^s$ / day
Inclination	2.6759°

According to the surveys carried out by the Infrared Astronomical Satellite IRAS, the Japanese Akari satellite, and the NEOWISE mission of NASA's Wide-field Infrared Survey Explorer, *Chimay* measures between 36.1 and 37.7 kilometers in diameter, and its surface has a low albedo between 0.079 and 0.089.[4][5][6][7] In accordance with the space-based surveys, the *Collaborative Asteroid Lightcurve Link* (CALL) derives an albedo of 0.078, and calculates a diameter of 36.1 kilometers. CALL also classifies *Chimay* as a S-type rather than a carbonaceous C-type asteroid.[3]

Longitude of ascending node	114.08°
Argument of perihelion	65.539°
Physical characteristics	
Dimensions	36.07 km (derived)[3] 36.12 ± 3.1 km (IRAS:3)[4] 36.26 ± 0.86 km[5] 37.428 ± 0.466[6] 37.732 ± 0.426 km[7]
Rotation period	6.58 ± 0.01 h[8] 6.590 64 ± 0.000 05 h[9] 6.5911 ± 0.0001 h[10] 6.6367 ± 0.0038 h[11]
Geometric albedo	0.0781 (derived)[3] 0.0785 ± 0.0135[7] 0.080 ± 0.014[6] 0.0854 ± 0.017 (IRAS:3)[4] 0.088 ± 0.005[5]
Spectral type	S [3]
Absolute magnitude *(H)*	10.36 ± 0.17 (R)[8] · 10.481 ± 0.002 (R)[11] · 10.5[5][7] · 10.6[1][3] · 10.97 ± 0.06[12]

Naming

This minor planet was named after the Belgian town Chimay, home of the discoverer, who also co-discovered Comet Arend–Roland.[2] The official naming citation was published by the Minor Planet Center on 20 February 1976 (M.P.C. 3931).[15]

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External links

- Asteroid Lightcurve Database (LCDB) (http://www.minorplanet.info/PHP/lcdbsummaryquery.php), query form (info (http://www.minorplanet.info/lightcurvedatabase.html) Archived (https://web.archive.org/web/20171216050541/http://www.minorplanet.info/lightcurvedatabase.html) 16 December 2017 at the Wayback Machine)
- Dictionary of Minor Planet Names (https://books.google.com/books?id=aeAg1X7afOoC&pg), Google books
- Asteroids and comets rotation curves, CdR (http://obswww.unige.ch/~behrend/page_cou.html) – Observatoire de Genève, Raoul Behrend
- Discovery Circumstances: Numbered Minor Planets (1)-(5000) (https://www.minorplanetcenter.net/iau/lists/NumberedMPs000001.html) – Minor Planet Center
- 1633 Chimay (https://newton.spacedys.com/astdys/index.php?n=1633&pc=1.1.0) at *AstDyS-2, Asteroids—Dynamic Site*
  - Ephemeris (https://newton.spacedys.com/astdys/index.php?n=1633&pc=1.1.3.0) · Observation prediction (https://newton.spacedys.com/astdys/index.php?n=1633&pc=1.1.4.0) · Orbital info (https://newton.spacedys.com/astdys/index.php?n=1633&pc=1.1.1) · Proper elements (https://newton.spacedys.com/astdys/index.php?n=1633&pc=1.1.6) · Observational info (https://newton.spacedys.com/astdys/index.php?n=1633&pc=1.1.7.0)
- 1633 Chimay (https://ssd.jpl.nasa.gov/sbdb.cgi?sstr=2001633#content) at the *JPL Small-Body Database*