

Calibrators and their Polarization

The table/figure was created from test-, pointing, and VLBI calibration measurements taken between 1990-2010. By courtesy of Alex Kraus and Uwe Bach.

Polarization properties

Table 1 Shows a summary of percentage polarization and PA. PA determination is more uncertain if the source is less polarized. Another good calibrator is NGC7027 that should have no linear polarization at any frequency.

Source	21cm		18cm		11cm		6cm		3.6cm		2.8cm		2cm	
	<m> [%]	<PA> [deg]	<m> [%]	<PA> [deg]	<m> [%]	<PA> [deg]	<m> [%]	<PA> [deg]	<m> [%]	<PA> [deg]	<m> [%]	<PA> [deg]	<m> [%]	<PA> [deg]
3C286	9.02	32.8	9.88	33.0	10.06	33.0	11.01	33.0	11.19	33.0	11.71	33.0	11.93	33.1
3C48	<0.3	-	<0.3	-	1.61	70.1	4.19	106.6	5.39	114.5	5.90	116.1	5.89	114.0
3C138	7.64	-10.0	8.29	-11.3	9.76	-10.4	11.17	-11.1	10.68	-10.2	10.59	-9.9	5.48	-15.2
3C147	<0.3	-	<0.3	-	<0.3	-	<0.3	-	0.93	-28.7	1.15	17.6		
3C161	5.78	30.3	9.75	125.9	10.18	-4.4	4.87	122.5	2.59	99.9	2.46	93.5		
3C196	1.12	23.9	0.31	28.9	1.19	54.2	2.46	122.4	1.51	-11.9	1.43	-33.9	0.88	-27.4
3C295	<0.3	-	<0.3	-	<0.3	-	<0.3	-	0.93	28.9	1.73	-24.5	1.99	95.4
0836+71	6.77	80.0	7.50	88.2	8.00	99.3	7.77	104.6	4.87	109.4	5.24	107.0	4.25	108.3

Flux density values

Figure 1 The plot shows measured flux densities of calibration sources as a function of frequency. It also visualizes the parts of the spectrum covered by Effelsberg receivers (red: primary focus, blue: secondary focus). Note that 3C123 is not point-like, so be careful at higher frequencies, 3C138 is somewhat variable, and below 10 GHz W3OH suffers from confusion.



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