

Quantifying Internal Strain and Deformation Temperature in the Eastern Himalaya, Bhutan: Implications for the Evolution of Strain in Thrust Sheets: Supplementary Material

Table SM1: Summary table of thin sections, attitude/orientation data, and strain data. Sample numbers in text and figures differ from thin-section names on Figs. SM1 and SM2; see table for key. Location, map unit, lithology, and attitudes of planar and linear features (if present) shown. All thin sections cut perpendicular to bedding or tectonic foliation. ‘A’ thin sections approximate XZ strain plane (cut parallel to lineation, perpendicular to crenulation axial planes, N-S, or parallel to dip direction; see section 5.1), and ‘B’ sections approximate the YZ strain plane (cut perpendicular to lineation, parallel to crenulation fold axes, E-W, or parallel to strike direction; see section 5.1). Thin section orientation and apparent dip of bedding/foliation in plane of cut shown (note that thin sections from 12 non-oriented samples are included). Type of strain analysis, Rs values for each analysis (note that Rs reported for Rf- φ analyses are taken from Harmonic Mean [HM] values shown on Fig. SM1 for Type B analyses, and from Rs values shown on Fig. SM1 for Type A analyses; see Fig. SM1 caption for equation), and φ values (measured relative to horizontal) shown. 2σ errors estimated for Rs and φ were calculated using methods outlined in Robin and Torrance [1987]). φ values for ‘A’ sections are listed as plunging N or S, because ‘A’ cuts more closely approximate N-S. Correspondingly, φ values for ‘B’ sections are listed as plunging E or W. Note that the plunge direction of φ cannot be determined for non-oriented samples, and are listed as N or S (XZ) and E or W (YZ). θ' is the difference in angle between the long axis of the ellipse and the apparent dip of bedding/foliation in the cut plane (e.g. Ramsay and Huber, 1983). The sign convention we use for θ' is: clockwise (steeper to the N/shallower to the S [XZ analyses] and steeper to the E/shallower to the W [YZ analyses]) is positive, and counterclockwise (shallower to the N/steeper to the S [XZ analyses] or shallower to the E/steeper to the W [YZ analyses]) is negative. Note that θ' is listed as \pm for non-oriented samples. The dip domain is the average apparent dip angle of bedding or tectonic foliation for the area of the cross-section at the sample location (Fig. 10). ‘Normalized φ ’ is a plunge angle (N or S for ‘A’ sections, E or W for ‘B’ sections) calculated from the difference between the dip domain angle and θ' . The ‘normalized φ ’ plunge value and Rs value for each ‘A’ section are projected onto the cross-sections in Fig. 10. Using ‘normalized φ ’ values instead of φ values removes the effects of variable dip, allowing for better visual representation of strain data on the cross-sections, which themselves are idealized models with average apparent dip domains assigned to large areas of rocks. 2σ errors for the X/Y ratio were estimated using the maximum and minimum Rs values obtained from the 2σ errors calculated for the corresponding XZ and YZ thin sections. The last column summarizes the relative ratios of the X, Y, and Z axes of the strain ellipsoid, and the azimuth of the X direction. For samples with only one thin section, only the relative ratios of the X and Z sections are shown. The reported X azimuth is calculated after rotating bedding/foliation to horizontal, in order to project the strain ellipsoids onto Figs. 2 and 3. The X direction is assumed to be 000 for non-oriented samples. Strain ellipsoids that have the greatest Rs on a ‘B’ thin section (i.e. perpendicular to lineation, parallel to crenulation fold axes, E-W, or parallel to strike direction) are highlighted in gray.

Insert Table SM1 here:

46 **Figure SM1:** Rf- ϕ plots of Bhutan thin sections, showing final ellipticity ratio (Rf; note that x-
 47 axis is ln Rf, e.g. Ramsay and Huber [1983]) vs. orientation of long axis (ϕ) data for individual
 48 quartz porphyroclasts. Samples are listed in same order as shown on Table SM1; thin section
 49 names differ from sample numbers used in text and figures; see Table SM1 for key to sample
 50 numbers. Number of grains (n = xx) shown, along with analysis type. 13 out of 175 total
 51 analyses resemble situation A of Fig. 5.5 of Ramsay and Huber (1983), where Rs is less than the
 52 maximum Ri, and the total ϕ range is between 90° and 180°. For these Type A analyses, Rs
 53 values reported on Table SM1 are calculated by: $Rs = (Rf \text{ maximum}/Rf \text{ minimum})^{1/2}$ (Ramsay
 54 and Huber [1983], p. 77). 162 out of 175 total analyses resemble situation B of Fig. 5.5 of
 55 Ramsay and Huber (1983), where Rs is greater than the maximum Ri and the total ϕ range is less
 56 than 90°. For these analyses (Type B), the Rs values reported on Table SM1 are from the
 57 harmonic mean (HM) of all measured Rf values. The Rs value shown for Type B analyses on
 58 this figure was calculated using the equation $Rs = (Rf \text{ maximum} * Rf \text{ minimum})^{1/2}$ (Ramsay and
 59 Huber [1983], p. 77). However, since this equation only uses the maximum and minimum Rf
 60 values, and since we are not comparing our data to Rf- ϕ reference curves (e.g. Ramsay and
 61 Huber [1983], Fig. 5.4), we report the HM values for Rs, which encompasses all data points, and
 62 provides an accurate estimate (within a few percent) of Rs if 20 or more grains have been
 63 measured (Lisle, 1977; 1979; Ramsay and Huber, 1983; Borridaile, 1984; Babaie, 1986). The
 64 median of the measured ϕ values is reported as the ϕ value on each plot. On all plots, a ϕ of 0 is
 65 horizontal, positive is down to the North ('A' thin sections) or down to the East ('B' thin
 66 sections), and negative is down to the South ('A' thin sections) or down to the West ('B' thin
 67 sections). Note that the ϕ plunge direction is reported on Table SM1. For non-oriented thin
 68 sections (n=12), horizontal on the plot is parallel to bedding/foliation. Since the ϕ calculated for
 69 these 12 analyses is the difference in angle between bedding and the long axis of the ellipse, it is
 70 reported as θ' on Table SM1 rather than ϕ (which cannot be calculated for a non-oriented
 71 sample, since we define ϕ relative to horizontal).

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73 **Insert Figure SM1 here:**

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75 **Figure SM2:** Normalized Fry plots of Bhutan thin sections. Thin section names differ from
 76 sample numbers used in text and figures; see Table SM1 for key to sample numbers. All plots
 77 are oriented so that a horizontal line represents horizontal in the plane of the thin section. All
 78 'A' thin sections are oriented with north on the right, the same as the cross-sections (Figs. 4, 10).
 79 All 'B' thin sections are oriented with east on the right. The reported plunge of ϕ (direction of
 80 long axis of ellipse) is relative to horizontal. For non-oriented thin sections (n = 6), no directions
 81 are labeled, and horizontal on the plot is parallel to bedding. Since the ϕ calculated for these 5
 82 analyses is the difference in angle between bedding and the long axis of the strain ellipse, it is
 83 reported as θ' on Table SM1 rather than ϕ (which cannot be calculated for a non-oriented
 84 sample, since we define ϕ relative to horizontal). To obtain Rs, we measured the ratio of the
 85 long to short axes of the ellipse defined by the contact between the point vacancy field in the
 86 center and the ring of high point-density just to the outside. The number of grains input for the
 87 analysis (n = xxx) is shown. For further details on the methods of the Normalized Fry analysis,
 88 see Erslev (1988).

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90 **Insert Figure SM2 here:**

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REFERENCES CITED

- 92
93
94 Babaie, H.A., 1986. A comparison of two-dimensional strain analysis methods using elliptical
95 grains. *Journal of Structural Geology* 8, 585-587.
96
97 Borridaile, G.J., 1984. Strain analysis of passive elliptical markers: success of destraining
98 methods. *Journal of Structural Geology* 6, 433-437.
99
100 Erslev, E.A., 1988. Normalized center-to-center analysis of packed aggregates. *Journal of*
101 *Structural Geology* 10, 201-209.
102
103 Lisle, R.J., 1977. Estimation of the tectonic strain ratio from the mean shape of deformed
104 elliptical markers. *Geologie Minjb.* 56, 140-144.
105
106 Lisle, R.J., 1979. Strain analysis using deformed pebbles: the influence of initial pebble shape.
107 *Tectonophysics* 60, 263-277.
108
109 Ramsay, J.G, Huber, M.I., 1983. *Techniques of Modern Structural Geology, Vol. 1: Strain*
110 *Analysis.* Academic Press, London. 307 pp.
111
112 Robin, P.Y., Torrance, J.G., 1987. Statistical analysis of the effect of sample size on paleostrain
113 calculation. I. Single face measurements. *Tectonophysics* 138, 311-317.

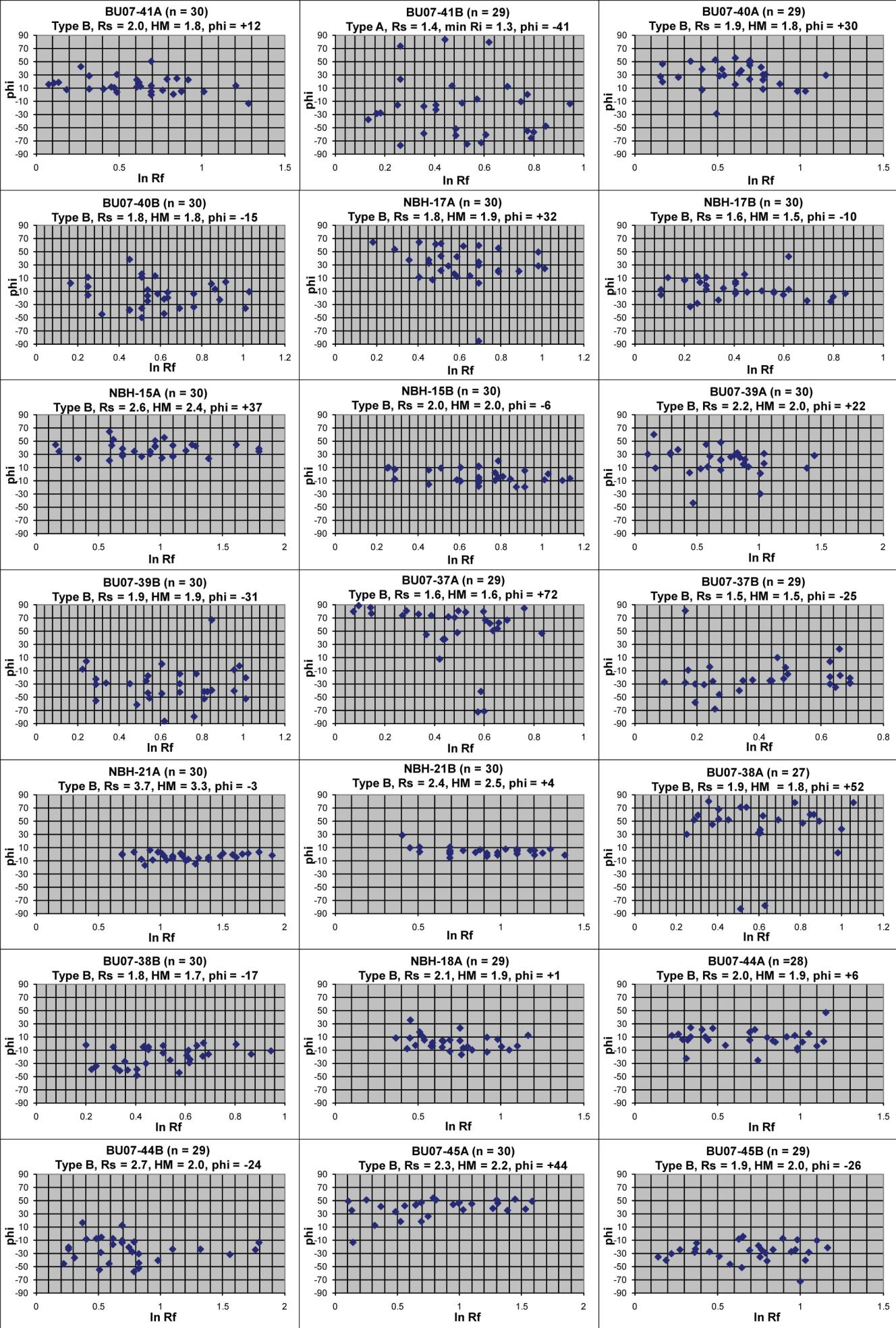
Table SM1: Thin sections of LH and GH rocks.

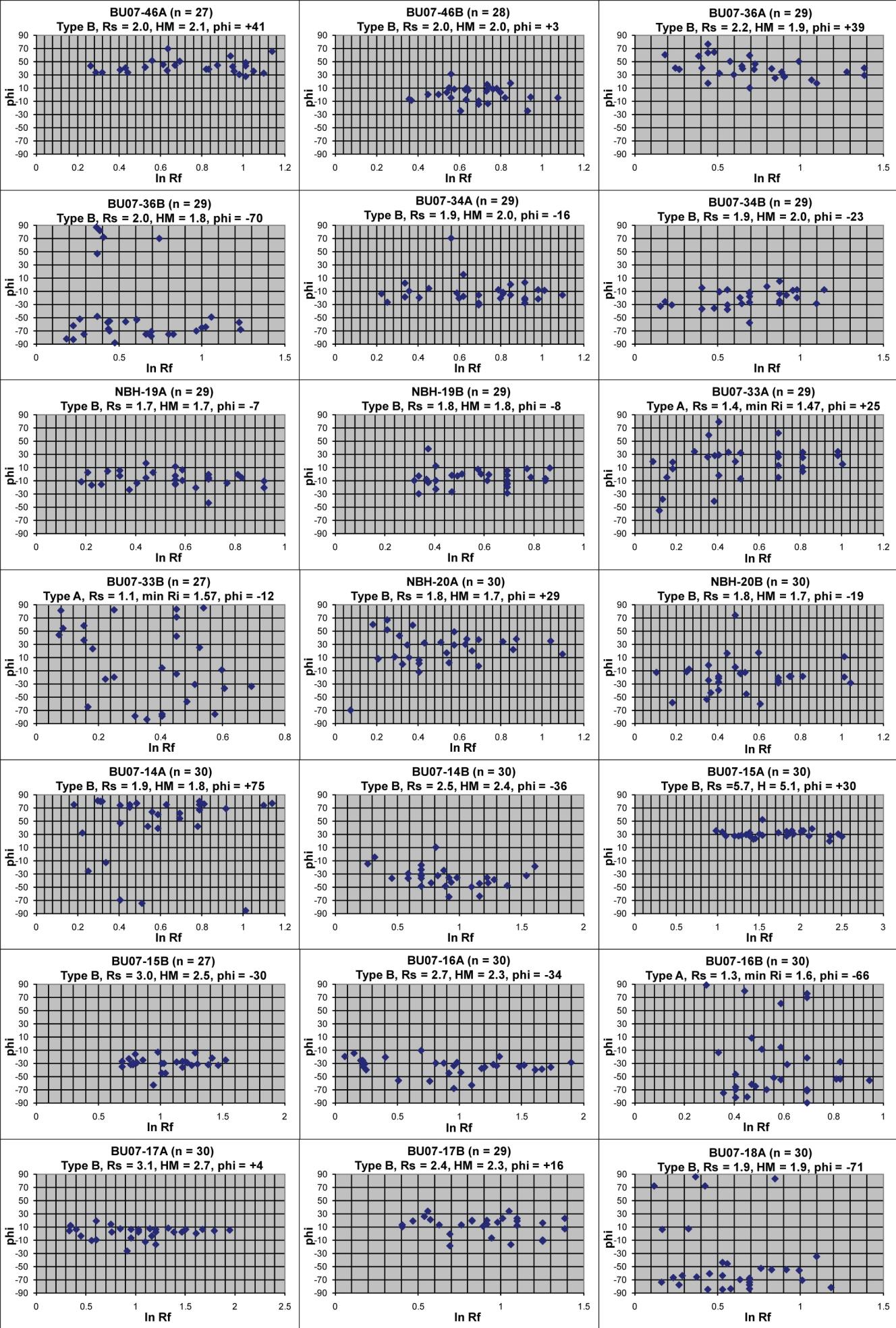
sample #	thin section in text	thin section	longitude	latitude	map unit	lithology	bedding	tectonic foliation	stretching lineation	crenulation fold axis	thin-section cut	thin section orientation	apparent dip in cut plane		strain analysis	Rs (2σ)	φ (2σ)	θ*	dip domain	normalized φ	X/Y ratio (2σ error)	3D ellipsoid: X:Y:Z to X azimuth
													Rs (2σ)	φ (2σ)								
1A	BU07-41A	91.51725	27.08033	Baxa	quartzite	070, 30NW	-	17, 039	-	parallel to lineation	032, 67SE	17N	Rf-f	1.8±0.2	12N±5	-5	30N	25N	1.3	1.8:1.4:1 to 035		
1B	BU07-41B									perpendicular to lineation	308, 73SW	23W	Rf-f	1.4±0.1	41W±12	-18			+0.3,-0.2			
2A	BU07-40A	91.51392	27.06597	Baxa	quartzite	057, 30N	-	38, 339	-	parallel to lineation	344, 83W	38N	Rf-f	1.8±0.2	30N±6	-8	30N	22N	1.0	1.8:1.8:1 to 336		
2B	BU07-40B									perpendicular to lineation	070, 52S	8W	Rf-f	1.8±0.2	15W±8	-7			+0.3,-0.2			
3A	NBH-17A	91.51450	27.06195	Baxa	quartzite	073, 40NW	-	-	-	parallel to dip direction	343, vertical	40N	Rf-f	1.9±0.1	32N±7	-8	30N	22N	1.3	1.9:1.5:1 to 343		
3B	NBH-17B									parallel to strike direction	078, 50SE	horiz.	Rf-f	1.5±0.1	10W±5	-10			+0.1,-0.2			
4A	NBH-15A	91.51492	27.06051	Baxa	phyllite	-	058, 32NW	-	-	parallel to dip direction	328, vertical	32N	Rf-f	2.4±0.4	37N±4	5	30N	35N	1.2	2.4:2.0:1 to 328		
4B	NBH-15B									parallel to strike direction	060, 59SE	horiz.	Rf-f	2.0±0.2	6W±4	-6			+0.4,-0.1			
5A	BU07-39A	91.50786	27.04775	Baxa	quartzite	055, 38N	-	22, 023	-	parallel to lineation	010, 61E	22N	Rf-f	2.0±0.3	22N±5	0	30N	30N	1.1	2.0:1.9:1 to 016		
5B	BU07-39B									perpendicular to lineation	292, 68S	29W	Rf-f	1.9±0.2	31W±8	-2			+0.3,-0.1			
6A	BU07-37A	91.50142	27.02675	Baxa	quartzite	025, 55NW	-	39, 350	-	parallel to lineation	321, 59NE	39N	Rf-f	1.6±0.1	72N±6	33	30N	63N	1.1	1.6:1.5:1 to 334		
6B	BU07-37B									perpendicular to lineation	079, 50S	32W	Rf-f	1.5±0.1	25W±6	7			+0.1			
7A	NBH-21A	91.50954	27.01961	Baxa	phyllite	-	-	-	-	parallel to lineation	not oriented	-	Rf-f	3.3±0.4	--- ±2	±3	30N	33N	1.3	3.3:2.5:1 to 000?		
7B	NBH-21B									perpendicular to lineation	not oriented	-	Rf-f	2.5±0.2	--- ±2	±4			+0.3,-0.2			
8A	BU07-38A	91.50947	27.01922	Baxa	quartzite	040, 58NW	56, 327	-	-	parallel to lineation	315, 82NE	56N	Rf-f	1.8±0.2	52N±7	4	30N	26N	1.1	1.8:1.7:1 to 320		
8B	BU07-38B									perpendicular to lineation	058, 334SE	9W	Rf-f	1.7±0.1	17W±5	-8			+0.2,-0.1			
9A	NBH-16A	91.52072	27.01200	Baxa	quartzite	-	-	-	-	parallel to lineation	not oriented	-	Rf-f	1.9±0.2	--- ±4	±1	40N	41N	-	1.9:1 to 000?		
10A	BU07-44A	91.51894	26.99919	Baxa	quartzite	040, 20NW	-	8, 016	-	parallel to lineation	014, 75E	8N	Rf-f	1.9±0.2	6N±4	-2	40N	38N	1.1	2.0:1.9:1 to 286		
10B	BU07-44B									perpendicular to lineation	286, 82S	15W	Rf-f	2.0±0.5	24W±7	-9			+0.4,-0.1			
11A	BU07-45A	91.52942	26.98908	Baxa	quartzite	050, 47NW	-	45, 340	-	parallel to lineation	331, 80NE	45N	Rf-f	2.2±0.4	44N±4	-1	40N	39N	1.1	2.2:2.0:1 to 334		
11B	BU07-45B									perpendicular to lineation	071, 45S	11W	Rf-f	2.0±0.2	26W±4	-15			+0.3,-0.1			
12A	BU07-46A	91.52744	26.98075	Baxa	quartzite	055, 49NW	-	49, 325	-	parallel to lineation	325, vertical	49N	Rf-f	2.1±0.2	41N±4	-8	40N	32N	1.1	2.1:2.0:1 to 325		
12B	BU07-46B									perpendicular to lineation	057, 43SE	horiz.	Rf-f	2.0±0.1	3E±4	3			+0.1			
13A	BU07-36A	91.53083	26.97442	Baxa	quartzite	045, 46NW	-	28, 014	-	parallel to lineation	354, 57E	28N	Rf-f	1.9±0.3	39N±6	11	40N	51N	1.1	1.9:1.8:1 to 004		
13B	BU07-36B									perpendicular to lineation	285, 61SW	33W	Rf-f	1.8±0.2	70W±6	-37			+0.3,-0.1			
14A	BU07-47A	91.53625	26.96858	Baxa	quartzite	100, 34S	-	34, 184	-	parallel to lineation	006, 86E	34S	norm. Fry	1.1	3S	-1	40N	39N	1.1	1.2:1.1:1 to 276		
14B	BU07-47B									perpendicular to lineation	275, 57N	5W	norm. Fry	1.2	20W	-15			-			
15A	BU07-48A	91.53775	26.96469	Baxa	quartzite	010, 62W	-	18, 000	-	parallel to lineation	332, 34NE	18N	norm. Fry	1.1	20S	-38	40N	2N	1.0	1.1:1.1:1 to 349		
15B	BU07-48B									perpendicular to lineation	272, 71S	57W	norm. Fry	1.1	47W	10			-			
16A	BU07-35A	91.54761	26.95992	Baxa	quartzite	300, 50N	-	-	-	parallel to dip direction	030, vertical	50N	norm. Fry	1.3	40S	-90	40N	51S	1.0	1.3:1.3:1 to 180		
16B	BU07-35B									parallel to strike direction	300, 38SW	horiz.	norm. Fry	1.3	46W	-46			-			
17A	BU07-34A	91.54839	26.95847	Diuri	diamictite	300, 17SW	-	9, 148	-	parallel to lineation	330, 75NE	9S	Rf-f	2.0±0.2	16S±4	-7	30S	37S	1.0	2.0:2.0:1 to 148		
17B	BU07-34B									perpendicular to lineation	057, 82NW	16W	Rf-f	2.0±0.2	23W±5	-7			+0.2,-0.0			
18A	NBH-19A	91.54864	26.95792	Diuri	diamictite	-	-	-	-	parallel to lineation	not oriented	-	Rf-f	1.7±0.1	--- ±4	±7	30S	23S	1.1	1.8:1.7:1 to 090?		
18B	NBH-19B									perpendicular to lineation	not oriented	-	Rf-f	1.8±0.1	--- ±5	±8			+0.1			
19A	BU07-33A	91.25869	27.10692	Diuri	diamictite	340, 41W	-	13, 325	-	parallel to lineation	315, 51NE	13N	Rf-f	1.4±0.2	25N±10	12	5N	17N	1.3	1.4:1.1:1 to 320		
19B	BU07-33B									perpendicular to lineation	056, 78SE	39W	Rf-f	1.1±0.1	12W±20	27			+0.3			
20A	BU07-54A	91.48028	26.87497	Diuri	quartzite	270, 55N	-	-	-	parallel to dip direction	000, vertical	55N	norm. Fry	1.6	5N	-50	40N	10S	-	1.6:1 to 000		
21A	NBH-20A	91.47878	26.87213	Diuri	diamictite	090, 35N	-	34, 021	-	parallel to lineation	015, 80SE	34N	Rf-f	1.7±0.2	29N±8	-5	40N	35N	1.0	1.7:1.7:1 to 021		
21B	NBH-20B									perpendicular to lineation	291, 56SW	9W	Rf-f	1.7±0.2	19W±7	-10			+0.3,-0.0			
22A	BU07-53A	91.48011	26.86572	Gondwana	sandstone	-	-	-	-	parallel to lineation	not oriented	-	norm. Fry	1.2	-	±50	40N	90N	-	1.2:1:0 to 000?		
23A	BU07-52A	91.46869	26.85228	Gondwana	sandstone	-	-	-	-	unknown	not oriented	-	norm. Fry	1.0	-	±80	40N	60S	-	1.0:1:0 to 000?		
24A	BU07-51A	91.48072	26.83886	Siwalks	sandstone	-	-	-	-	unknown	not oriented	-	norm. Fry	1.1	-	±36	40N	76N	-	1.1:1:0 to 000?		
25A	BU07-50A	91.48400	26.82058	Siwalks	sandstone	-	-	-	-	unknown	not oriented	-	norm. Fry	1.1	-	±42	40N	82N	-	1.1:1:0 to 000?		
26A	BU07-49A	91.50439	26.79661	Siwalks	sandstone	-	-	-	-	parallel to striation	not oriented	-	norm. Fry	1.1	-	±45	40N	85S	1.1	1.1:1:0 to 000?		
26B	BU07-49B									perpendicular to striation	not oriented	-	norm. Fry	1.0	-	±20			-			
27A	BU07-14A	91.24000	27.16608	Baxa	quartzite	026, 55NW	-	46, 338	-	parallel to dip direction	296, vertical	55N	Rf-f	1.8±0.2	75W±7	-20	35N		1.3	2.4:1.8:1 to 026		
27B	BU07-14B									parallel to strike direction	026, 35SE	horiz.	Rf-f	2.4±0.3	36N±6	36			+0.3			
28A	BU07-15A	91.23933	27.15431	Baxa	quartzite	080, 26N	-	35, 006	-	parallel to lineation	003, 83E	35N	Rf-f	5.1±1.0	30N±2	-5	35N	30N	2.0	5.1:2.5:1 to 004		
28B	BU07-15B									perpendicular to lineation	276, 64S	8W	Rf-f	2.5±0.3	30W±4	-22			+0.7,-0.2			
29A	BU07-16A	91.30033	27.12036	Shumar	quartzite	285, 56S	-	32, 130	-	parallel to lineation	341, 50NE	32S	Rf-f	2.3±0.5	34S±5	-2	40S	42S	1.8	2.3:1.3:1 to 144		
29B	BU07-16B									perpendicular to lineation	040, 58NW	50W	Rf-f	1.3±0.1	66W±11	-16			+0.6,-0.5			
30A	BU07-17A	91.25264	27.11769	Baxa	quartzite	-	-	-	-	parallel to lineation	not oriented	-	Rf-f	2.7±0.5	--- ±3	±4	48S	44S	1.2	2.7:2.3:1 to 000?		
30B	BU07-17B									perpendicular to lineation	not oriented	-	Rf-f	2.3±0.3	--- ±5	±16			+0.4,-0.2			
31A	BU07-18A	91.25686	27.10706	Baxa	quartzite	300, 59SW	-	51, 167	-	parallel to lineation	016, 68SE	51S	Rf-f	1.9±0.2	71S±7	-20	48S	68S	1.2	1.9:1.6:1 to 186		
31B	BU07-18B									perpendicular to lineation	076, 51NW	23W	Rf-f	1.6±0.1	32W±7	-9			+0.1,-0.2			
32A	BU07-19A	91.25869	27.10692	Baxa	phyllite	-	065, 72SE	51, 222	-	parallel to lineation	347, 56SW	51S	Rf-f	1.7±0.2	59S±6	-8	48S	56S	1.1	1.9:1.7:1 to 100		
32B	BU07-19B									perpendicular to lineation	311, 40NE	35E	Rf-f	1.9±0.2	41E±5	6			+0.3,-0.1			
33A	BU07-20A	91.25881	27.10619	Baxa	quartzite	040, 72SE	-	64, 083	-	parallel to dip direction	310, vertical	72S	Rf-f	2.2±0.3	76S±5	-4	48S	52S	1.2	2.2:1.9:1 to 310		
33B	BU07-20B									parallel to strike direction	040, 18NW	horiz.	Rf-f	1.9±0.2	11W±5	-11			+0.3,-0.2			
34A	BU07-21A	91.22197	27.07247	Daling	quartzite	075, 74S	-	69, 211	-	parallel to lineation	348, 75SW	69S	Rf-f	2.9±0.3	68S±3	1	48S	49S	1.3	2.9:2.3:1 to 180		
34B	BU07-21B									perpendicular to lineation	304, 23NE	15E	Rf-f	2.3±0.3	38E±6	23			+0.3			
35A	BU07-22A	91.20628	27.00844	Baxa	quartzite	-	-	-	-	parallel to lineation	not oriented	-	Rf-f	1.5±0.1	--- ±10	±15	50N	63N	1.4	1.5:1:1 to 000?		
35B	BU07-22B									perpendicular to lineation	not oriented	-	Rf-f	1.1±0.1	--- ±17	±15			+0.2			
36A	BU07-23A	91.18103	26.96375	Diuri	conglomerate	355, 75W	-	9, 351	-	parallel to lineation	320, 18NE	9N	Rf-f	1.7±0.2	4S±7	-13	50N	37N	1.0	1.7:1.7:1 to 345		
36B	BU07-23B									perpendicular to lineation	082, 80S	72W	Rf-f	1.7±								

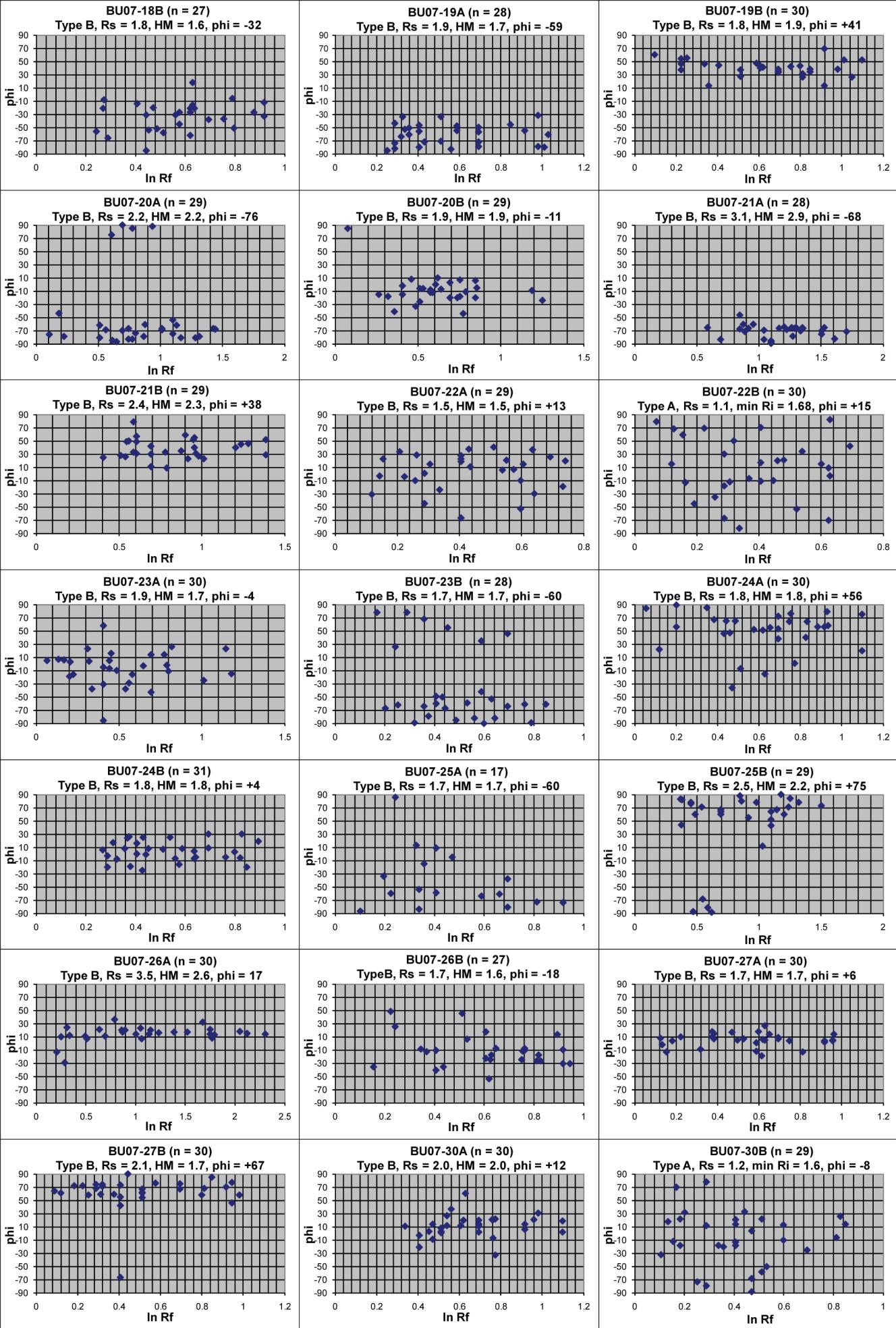
38A	BU07-25A	91.21928	26.92072	Diuri	quartzite	315, 64SW	-	64, 225	-	parallel to lineation	045, vertical	64S	Rf-φ	1.7±0.2	60S±16	4	15N	19N	1.3	2.2:1.7:1 to 045	
38B	BU07-25B									perpendicular to lineation	315, 26NE	horiz.	Rf-φ	2.2±0.3	75E±6	75			+0.4, -0.2		
39A	BU07-26A	91.22817	26.90828	Baxa	quartzite	040, 30NW	-	14, 012	-	parallel to lineation	006, 65E	14N	Rf-φ	2.6±0.8	17N±3	3	15N	18N	1.6	2.6:1.6:1 to 009	
39B	BU07-26B									perpendicular to lineation	283, 75SW	25W	Rf-φ	1.6±0.2	18W±7	7			+0.8, -0.6		
40A	BU07-27A	91.23072	26.90567	Diuri	diamictite	327, 80NE	-	10, 329	-	parallel to lineation	009, 14W	10N	Rf-φ	1.7±0.2	6N±4	-4	50N	46N	1.0	1.7:1.7:1 to 338	
40B	BU07-27B									perpendicular to lineation	060, 81SE	77E	Rf-φ	1.7±0.2	67E±4	-10			+0.3, -0.0		
41A	BU07-30A	91.23961	26.88508	Diuri	diamictite	285, 22N	-	21, 354	-	parallel to lineation	356, 83W	21N	Rf-φ	2.0±0.2	12N±6	-9	50N	41N	1.7	2.0:1.2:1 to 356	
41B	BU07-30B									perpendicular to lineation	086, 70S	7E	Rf-φ	1.2±0.1	8W±15	-15			+0.3		
42A	BU07-29A	91.23983	26.87803	Diuri	diamictite	-	-	-	-	parallel to lineation	not oriented	-	Rf-φ	1.0±0.1	---	+20	50N	54N	1.4	1.4:1.0:1 to 090?	
42B	BU07-29B									perpendicular to lineation	not oriented	-	Rf-φ	1.4±0.2	---	+16	50N	61N	-	1.7:1 to 000?	
43A	BU07-28A	91.23072	26.87214	Gondwana	shale	-	-	-	-	parallel to lineation	not oriented	-	Rf-φ	1.7±0.2	---	+6	50N	20N	21N	1.0	2.5:2.4:1 to 283
44A	BU08-22A	91.10122	27.08403	Baxa	quartzite	050, 35NW	-	20, 019	27, 278	parallel to lineation	007, 63E	20N	Rf-φ	2.4±0.3	21N±3	1	20N	21N	1.0	3.0:2.8:1 to 254	
44B	BU08-22B									perpendicular to lineation	288, 70SW	28W	Rf-φ	2.5±0.3	26W±3	2			+0.3, -0.0		
45A	BU08-24A	91.11617	27.05933	Baxa	quartzite	305, 16SW	-	11, 164	-	parallel to lineation	346, 78E	11S	Rf-φ	2.8±0.4	10S±4	-1	20N	19N	1.1	3.0:2.8:1 to 254	
45B	BU08-24B									perpendicular to lineation	074, 80N	12W	Rf-φ	3.0±0.4	14W±4	-2			+0.3, -0.1		
46A	BU08-25A	91.09739	27.04972	Baxa	quartzite	305, 10SW	-	9, 180	-	parallel to lineation	000, 85E	9S	Rf-φ	1.8±0.1	14S±6	-5	20N	15N	1.1	1.8:1.7:1 to 180	
46B	BU08-25B									perpendicular to lineation	090, 81N	5W	Rf-φ	1.7±0.2	15W±6	-10			+0.1		
47A	BU08-26A	91.07975	27.03614	Baxa	phyllite	-	045, 20NW	18, 346	-	parallel to lineation	343, 81NE	18N	Rf-φ	2.3±0.4	22N±1	-4	20N	16N	1.3	2.3:1.8:1 to 346	
47B	BU08-26B									perpendicular to lineation	077, 73S	9W	Rf-φ	1.8±0.2	10W±6	-1			+0.4, -0.3		
48A	BU08-28A	91.04831	27.01133	Baxa	phyllite	-	055, 3NW	-	0, 256	perpendicular to crenulation	344, vertical	3N	Rf-φ	4.2±0.5	5N±2	2	20N	22N	1.6	4.2:2.7:1 to 344	
48B	BU08-28B									parallel to crenulation	066, 87SE	horiz.	Rf-φ	2.7±0.6	1E±2	1			+0.7, -0.4		
49A	BU08-29A	91.05414	26.99261	Baxa	quartzite	000, 32W	-	5, 351	-	parallel to lineation	348, 59E	5N	Rf-φ	1.5±0.1	20N±7	15	12S	3N	1.0	1.5:1.5:1 to 351	
49B	BU08-29B									perpendicular to lineation	082, 86S	31W	Rf-φ	1.5±0.1	30W±9	1			+0.1, -0.0		
50A	BU08-30A	91.05694	26.98383	Baxa	quartzite	065, 32NW	-	32, 351	-	parallel to lineation	347, 82E	32N	Rf-φ	2.1±0.4	20N±2	-12	28N	16N	1.1	2.4:2.1:1 to 259	
50B	BU08-30B									perpendicular to lineation	082, 59S	8W	Rf-φ	2.4±0.3	0±4	8			+0.4, -0.1		
51A	BU08-31A	91.02647	26.95117	Baxa	quartzite	065, 33NW	-	34, 332	8, 050	parallel to lineation	332, vertical	34N	Rf-φ	2.4±0.3	34N±3	0	35N	35N	1.1	2.4:2.1:1 to 332	
51B	BU08-31B									perpendicular to lineation	065, 57SW	horiz.	Rf-φ	2.1±0.2	0E±4	0			+0.2, -0.1		
52A	BU08-32A	90.99847	26.92900	Baxa	phyllite	-	045, 20SE	18, 161	8, 069	parallel to lineation	337, 82SW	18S	Rf-φ	2.0±0.2	26S±5	-8	35N	27N	1.1	2.1:2.0:1 to 071	
52B	BU08-32B									perpendicular to lineation	071, 72NW	7E	Rf-φ	2.1±0.3	2E±9	-5			+0.3, -0.1		
53A	BU08-35A	90.98911	26.87678	Baxa	quartzite	055, 71SE	-	-	-	North-South	338, 57SW	51S	norm. Fry	1.8	47S	4	15S	11S	1.3	1.8:1.4:1 to 180	
53B	BU08-35B									East-West	300, 40NE	33E	norm. Fry	1.4	25E	-8			-		
54A	BU08-43A	90.95967	26.85283	Baxa	quartzite	285, 38N	-	37, 002	-	parallel to lineation	006, 84W	37N	Rf-φ	1.8±0.1	49N±6	12	4N	16N	1.5	1.8:1.2:1 to 005	
54B	BU08-43B									perpendicular to lineation	272, 54S	6E	Rf-φ	1.2±0.1	23W±13	-29			+0.2		
55A	BU08-36A	90.95708	26.84536	Baxa	phyllite	-	305, 36SW	27, 169	-	parallel to lineation	002, 69E	27S	Rf-φ	1.6±0.2	32S±8	-5	42S	47S	1.3	1.6:1.2:1 to 175	
55B	BU08-36B									perpendicular to lineation	078, 63N	21W	Rf-φ	1.2±0.1	11W±15	10			+0.3, -0.2		
56A	BU08-37A	90.94556	26.82744	Baxa	phyllite	-	090, vert	80, 270	-	parallel to lineation	000, 80W	80S	Rf-φ	2.1±0.1	68S±8	12	15S	3S	2.1	2.1:1.0:1 to 180	
56B	BU08-37B									perpendicular to lineation	000, 10E	10E	Rf-φ	1.0±0.1	1W±17	-11			+0.1, -0.3		
57A	BU08-38A	90.94131	26.81964	Gondwana	sandstone	085, 40S	-	-	-	North-South	351, 88E	40S	norm. Fry	1.3	57S	-17	30S	47S	1.2	1.5:1.3:1 to 260	
57B	BU08-38B									East-West	080, 55N	2W	norm. Fry	1.5	0	2			-		
58A	BU08-39A	90.94086	26.81467	Gondwana	siltstone	090, 64S	-	-	-	North-South	000, vertical	64S	Rf-φ	1.3±0.2	79S±18	-15	30S	45S	1.2	1.5:1.3:1 to 090	
58B	BU08-39B									East-West	090, 26N	horiz.	Rf-φ	1.5±0.1	3E±9	3			+0.3, -0.2		
59A	BU08-40A	90.95697	26.80911	Gondwana	sandstone	055, 86S	-	-	-	North-South	327, 55SW	54S	norm. Fry	1.2	51S	3	12N	15N	1.1	1.3:1.2:1 to 270	
59B	BU08-40BB									East-West	317, 36NE	35E	norm. Fry	1.3	45E	10					
60A	BU08-40AA	90.95697	26.80897	Siwaliks	sandstone	090, 80S	-	-	-	North-South	000, vertical	80S	norm. Fry	1.3	59N	-41	25S	66S	1.0	1.3:1.3:1 to 180	
60B	BU08-40AB									East-West	090, 10N	horiz.	norm. Fry	1.3	13E	13			-		
61A	BU08-41A	90.96275	26.79786	Siwaliks	sandstone	080, vert	-	-	-	North-South	350, 80W	80S	norm. Fry	1.3	79N	-21	35N	14N	1.3	1.3:1.0:1 to 170	
61B	BU08-41B									East-West	350, 10E	10E	norm. Fry	1.0	30E	20			-		
62A	BU08-42A	90.96214	26.78642	Siwaliks	sandstone	285, 41N	-	-	-	North-South	004, 81W	40N	norm. Fry	1.4	59N	19	35N	54N	1.3	1.4:1.1:1 to 000	
62B	BU08-42B									East-West	086, 51S	9E	norm. Fry	1.1	22E	13			-		
63A	BU08-72A	90.55781	26.96631	Jaishidanda	quartzite	300, 54NE	-	54, 021	-	parallel to lineation	027, 85NW	54N	Rf-φ	3.2±0.5	55N±4	1	18N	19N	-	3.2:1 to 024	
64A	BU08-73A	90.55161	26.95356	Baxa	quartzite	295, 61N	-	53, 348	-	parallel to lineation	016, 73NW	53N	Rf-φ	1.8±0.2	57N±12	4	50N		1.1	1.8:1.7:1 to 006	
64B	BU08-73B									perpendicular to lineation	078, 35S	17E	Rf-φ	1.7±0.1	16E±10	-1			+0.2, -0.1		
65A	BU08-70A	90.53058	26.95467	Baxa	phyllite	-	090, 54N	49, 032	-	parallel to lineation	011, 75E	49N	Rf-φ	2.2±0.2	60N±4	11	50N	61N	1.3	2.2:1.7:1 to 020	
65B	BU08-70B									perpendicular to lineation	302, 40SW	17W	Rf-φ	1.7±0.1	4E±6	21			+0.2		
66A	BU08-71A	90.54275	26.94822	Baxa	quartzite	285, 68N	-	53, 317	-	parallel to lineation	002, 63W	53N	Rf-φ	1.7±0.1	43N±7	-10	50N	40N	1.1	1.8:1.7:1 to 075	
66B	BU08-71B									perpendicular to lineation	049, 38SE	27E	Rf-φ	1.8±0.1	20E±7	-7			+0.1		
67A	BU08-69AA	90.51731	26.94117	Baxa	quartzite	275, 65N	-	65, 012	-	parallel to lineation	002, 87E	65N	Rf-φ	1.9±0.2	84N±5	19	50N	69N	1.1	1.9:1.7:1 to 009	
67B	BU08-69AB									perpendicular to lineation	282, 25S	3W	Rf-φ	1.7±0.1	15W±8	-12			+0.2, -0.1		
68A	BU08-68A	90.50478	26.92622	Baxa	phyllite	-	310, 36NE	18, 338	-	parallel to lineation	350, 60W	18N	Rf-φ	1.7±0.1	2N±6	-16	50N	44N	1.0	1.7:1.7:1 to 342	
68B	BU08-68B									perpendicular to lineation	069, 73SE	30E	Rf-φ	1.7±0.1	35E±8	5			+0.1, -0.0		

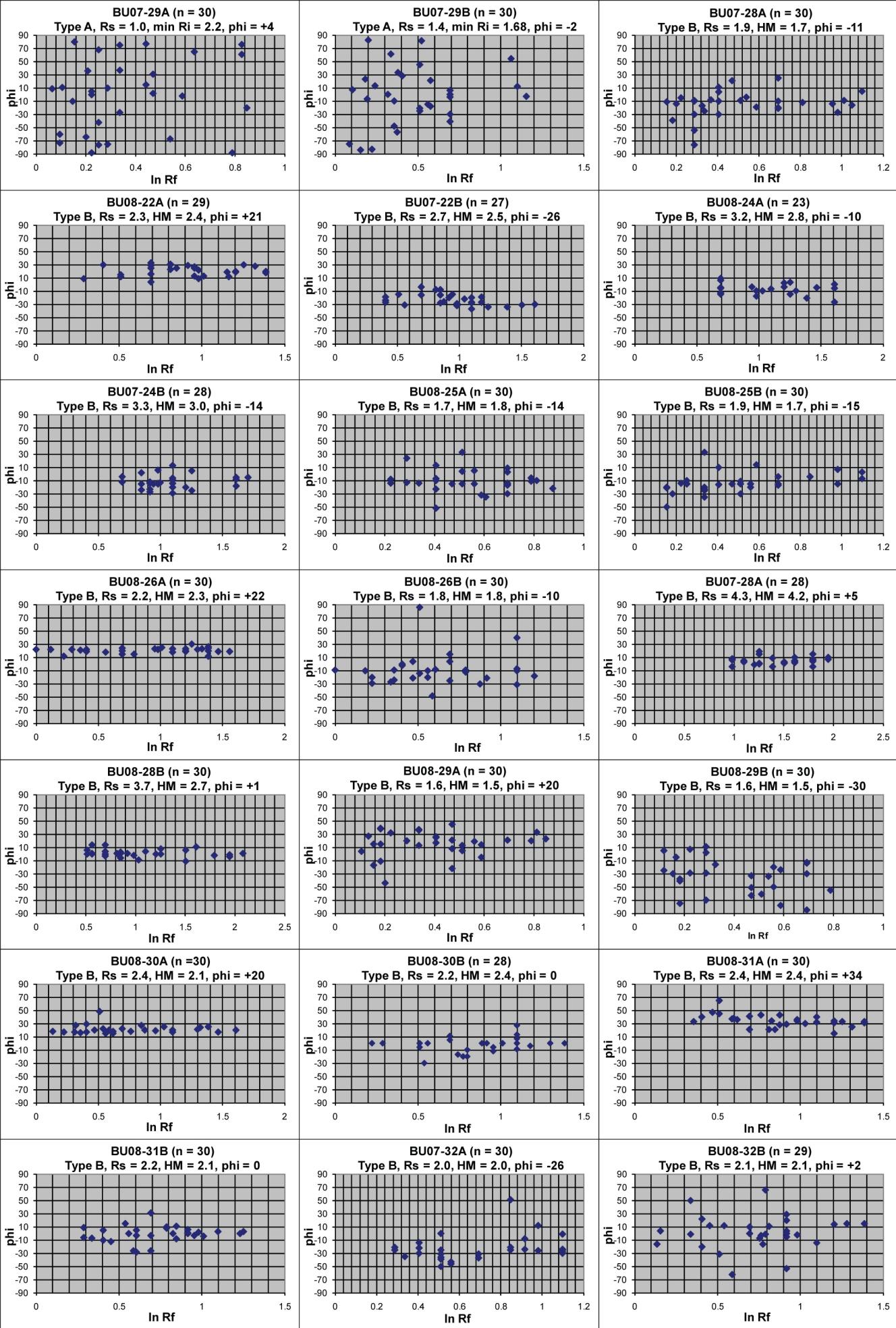
sample # in text	thin section	longitude	latitude	map unit	lithology	bedding	primary foliation	stretching lineation	crenulation fold axis
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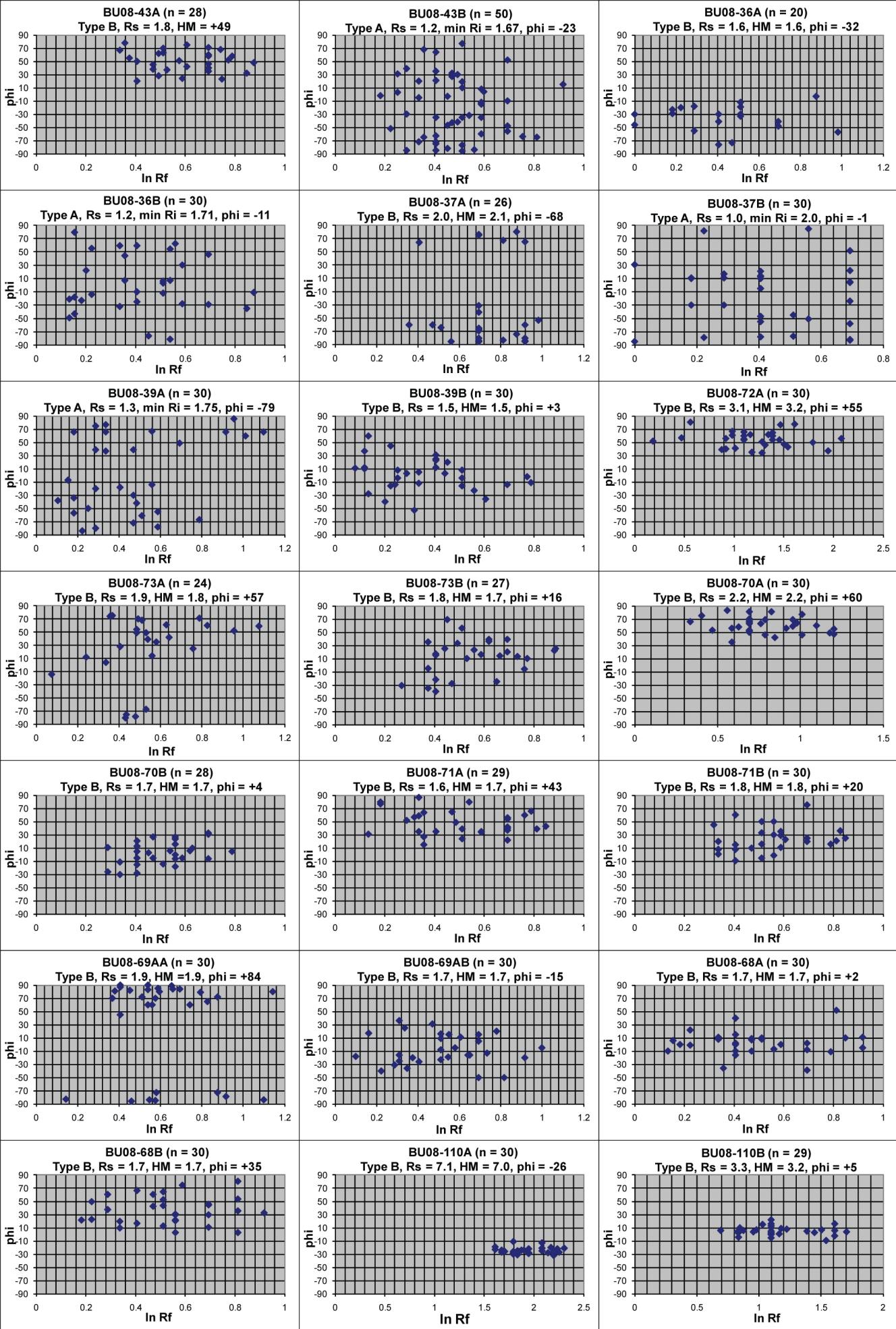
73A	BU08-105A	90.53150	27.39489	GH metased.	quartzite	065, 14SE	-	-	-	North-South	359, 85W	13S	Rf-f	2.4±0.1	10S±3	3	20S	17S	1.2	2.4:2.0:1 to 180°
73B	BU08-105B									East-West	090, 76N	5E	Rf-f	2.0±0.1	3W±3	-8			±0.1	
74A	BU08-104A	90.51411	27.38400	GH metased.	quartzite	010, 54SW	-	31, 346	-	parallel to lineation	314, 52NE	31N	Rf-f	3.8±0.5	30N±2	-1	0N	1S	1.7	3.8:2.2:1 to 330°
74B	BU08-104B									perpendicular to lineation	077, 59SW	38W	Rf-f	2.2±0.2	37W±3	-1			±0.4	
75A	BU08-103A	90.54006	27.36603	GH metased.	quartzite	005, 15W	-	2, 000	-	parallel to lineation	000, 76E	2N	Rf-f	4.0±0.4	5N±1	3	0N	3N	-	4.0:1 to 000°
76A	BU08-102A	90.57372	27.34883	GH metased.	schist	-	325, 18NE	10, 359	-	parallel to lineation	002, 76W	10N	Rf-f	8.5±0.6	9N±1	-1	16S	17S	2.3	8.5:3.7:1 to 350°
76B	BU08-102B									perpendicular to lineation	089, 80S	15E	Rf-f	3.7±0.5	18E±3	3			±0.5, -0.4	
77A	BU08-101A	90.59397	27.33431	GH metased.	schist	-	060, 8SE	-	-	North-South	359, 87W	8S	Rf-f	3.5±0.3	7S±2	1	16S	15S	1.6	3.5:2.2:1 to 180°
77B	BU08-101B									East-West	090, 82N	3E	Rf-f	2.2±0.2	4W±3	-7			±0.3	
78A	BU08-100A	90.59294	27.32528	Chekha	quartzite	045, 19SE	-	18, 145	-	parallel to lineation	320, 87SW	18S	Rf-f	3.4±0.4	19S±2	-1	16S	17S	1.2	3.4:2.8:1 to 140°
78B	BU08-100B									perpendicular to lineation	055, 72NW	3E	Rf-f	2.8±0.4	14E±2	11			±0.4, -0.2	
79A	BU08-99A	90.60458	27.30569	Chekha	quartzite	040, 19SE	-	12, 182	-	parallel to lineation	358, 76W	12S	Rf-f	4.1±0.4	10S±2	2	16S	14S	2.2	4.1:1.9:1 to 180°
79B	BU08-99B									perpendicular to lineation	272, 78N	14W	Rf-f	1.9±0.2	20W±3	-6			±0.5, -0.4	
80A	BU08-98A	90.62914	27.27817	Chekha	quartzite	310, 15NE	-	-	10, 086	perpendicular to crenulation	356, 80W	11N	Rf-f	1.5±0.1	5N±5	-6	4N	2S	1.0	1.5:1.5:1 to 350°
80B	BU08-98B									parallel to crenulation	084, 80S	10E	Rf-f	1.5±0.1	10E±6	0			±0.1, -0.0	
81A	BU08-97A	90.60025	27.26008	Chekha	quartzite	310, 23NE	-	-	9, 107	perpendicular to crenulation	017, 81NW	21N	norm. Fry	1.5	12N	-9	25S	34S	1.2	1.5:1.3:1 to 018°
81B	BU08-97B									parallel to crenulation	282, 69S	9E	norm. Fry	1.3	17W	-26				
82A	BU08-96A	90.61353	27.23847	Maneteng	phyllite	-	050, 11SE	-	4, 076	perpendicular to crenulation	344, 86SW	11S	norm. Fry	1.4	42S	-31	25S	56S	1.1	1.6:1.4:1 to 070°
82B	BU08-96B									parallel to crenulation	080, 80N	4E	Rf-f	1.6±0.1	62E±8	58				
83A	BU08-95A	90.62683	27.22631	Maneteng	phyllite	-	345, 33W	-	32, 250	perpendicular to crenulation	339, 58NE	3N	Rf-f	2.1±0.1	78S±7	-81	4N	77S	1.5	2.1:1.4:1 to 340°
83B	BU08-95B									parallel to crenulation	071, 87S	32E	Rf-f	1.4±0.1	47E±9	15			±0.2, -0.3	
84A	BU08-94A	90.68114	27.23581	Maneteng	phyllite	-	050, 24N	-	-	North-South	356, 76E	19N	Rf-f	3.0±0.2	19N±2	0	4N	4N	1.4	3.0:2.2:1 to 000°
84B	BU08-94B									East-West	272, 72S	15W	Rf-f	2.2±0.2	15W±3	0			±0.2, -0.0	
85A	BU08-93A	90.67039	27.20875	Maneteng	phyllite	-	050, 24N	22, 342	-	parallel to lineation	338, 83NE	22N	Rf-f	2.9±0.5	23N±4	1	18N	19N	1.0	3.0:2.9:1 to 250°
85B	BU08-93B									perpendicular to lineation	073, 68S	7W	Rf-f	3.0±0.3	7W±3	0			±0.2, -0.0	
86A	BU08-90A	90.71044	27.20494	Maneteng	phyllite	-	045, 45NW	43, 334	-	parallel to lineation	325, 80NE	43N	Rf-f	2.8±0.3	38N±2	-5	18N	13N	1.8	2.8:1.6:1 to 320°
86B	BU08-90B									perpendicular to lineation	066, 47SE	10W	Rf-f	1.6±0.1	30W±6	-20			±0.3	
87A	BU08-89A	90.72422	27.19322	Maneteng	phyllite	-	320, 30SW	-	0, 320	perpendicular to crenulation	050, vertical	30S	Rf-f	3.0±0.3	36S±3	-6	18N	12N	1.3	3.0:2.4: to 230°
87B	BU08-89B									parallel to crenulation	320, 60NE	horiz.	Rf-f	2.4±0.2	7W±2	-7			±0.3	
88A	BU08-88A	90.70633	27.18875	Chekha	quartzite	280, 19N	-	-	-	North-South	000, 87W	18N	Rf-f	1.5±0.1	42N±7	24	18N	42N	1.1	1.5:1.4:1 to 000°
88B	BU08-88B									East-West	270, 71S	3E	Rf-f	1.4±0.1	4W±7	-7			±0.2, -0.1	
89A	BU08-91A	90.69833	27.17578	Chekha	quartzite	275, 29N	-	29, 005	-	parallel to lineation	005, vertical	29N	Rf-f	1.7±0.1	19N±6	-10	18N	8N	1.1	1.7:1.6:1 to 000°
89B	BU08-91B									perpendicular to lineation	275, 61S	horiz.	Rf-f	1.6±0.1	7F±5	7			±0.1	
90A	BU08-87A	90.69531	27.17514	Chekha	quartzite	280, 37N	-	-	-	North-South	002, 85W	36N	Rf-f	1.6±0.1	14N±6	-22	18N	4S	1.1	1.6:1.5:1 to 000°
90B	BU08-87B									East-West	087, 53S	6E	Rf-f	1.5±0.1	8W±6	-14			±0.1	
91A	BU08-86A	90.69958	27.16092	Chekha	quartzite	310, 51NE	-	-	-	North-South	011, 60W	36N	Rf-f	1.5±0.1	73N±10	37	18N	55N	1.0	1.5:1.5:1 to 000°
91B	BU08-86B									East-West	078, 54S	30E	Rf-f	1.5±0.1	9E±7	-23			±0.1, -0.0	
92A	BU08-49A	90.69133	27.14817	Chekha	quartzite	285, 36N	-	-	-	North-South	002, 80W	35N	Rf-f	1.6±0.1	42N±5	7	18N	25N	1.1	1.6:1.4:1 to 000°
92B	BU08-49B									East-West	086, 56S	9E	Rf-f	1.4±0.1	6W±7	-15			±0.2, -0.1	
93A	BU08-67A	90.66808	27.12439	Chekha	quartzite	040, 26NW	-	-	27, 315	perpendicular to crenulation	315, 89NE	21S	Rf-f	1.7±0.2	20S±9	1	18N	19N	1.1	1.8:1.7:1 to 220°
93B	BU08-67B									parallel to crenulation	045, 64S	27W	Rf-f	1.8±0.1	32W±6	-5			±0.2, -0.1	
94A	BU08-64A	90.68092	27.13264	Chekha	quartzite	290, 36N	-	-	-	North-South	003, 79W	35N	Rf-f	1.1±0.1	23S±20	-58	18N	40S	1.5	1.6:1.1:1 to 090°
94B	BU08-64B									East-West	086, 57S	11E	Rf-f	1.6±0.1	23E±6	12			±0.3	
95A	BU08-65A	90.67603	27.12750	GH metased.	phyllite	-	315, 23NE	14, 350	-	parallel to lineation	355, 71W	14N	Rf-f	2.5±0.2	3S±3	-17	18N	1N	-	2.5:1 to 353°
96A	BU08-66A	90.67347	27.12064	GH metased.	schist	-	090, 40N	40, 006	-	parallel to lineation	004, 87E	40N	Rf-f	2.3±0.2	28N±3	-12	18N	6N	1.4	2.3:1.6:1 to 000°
96B	BU08-66B									perpendicular to lineation	276, 50S	3W	Rf-f	1.6±0.1	15W±5	-12			±0.2	
97A	BU08-85A	90.64817	27.11503	GH metased.	schist	-	050, 34N	-	26, 280	perpendicular to crenulation	010, 64E	19N	Rf-f	1.7±0.1	22N±4	3	18N	21N	1.1	1.8:1.7:2 to 280°
97B	BU08-85B									parallel to crenulation	290, 71S	26W	Rf-f	1.8±0.1	21W±3	5			±0.1	
98A	BU08-84A	90.65803	27.11083	GH metased.	quartzite	090, vert	-	-	-	North-South	000, vertical	90N	norm. Fry	1.2	20N	-70	18N	52S	1.0	1.2:1.2:1 to 000°
98B	BU08-84B									horizontal	000, horizontal	norm. Fry	1.2	48W	-48				-	
99A	BU08-83A	90.64250	27.08908	GH metased.	quartzite	350, 18W	-	-	17, 271	perpendicular to crenulation	001, 73E	3S	Rf-f	1.7±0.1	1S±4	2	18N	20N	1.2	2.0:1.7:1 to 270°
99B	BU08-83B									parallel to crenulation	089, 87N	17W	Rf-f	2.0±0.2	20W±3	-3			±0.2	
100A	BU08-81A	90.63392	27.06389	GH metased.	schist	-	295, 24N	21, 352	-	parallel to lineation	356, 78W	21N	Rf-f	1.8±0.1	36N±5	15	18N	33N	1.1	1.8:1.7:1 to 350°
100B	BU08-81B									perpendicular to lineation	262, 69S	11E	Rf-f	1.7±0.1	0±3	-11			±0.1	
101A	BU08-80A	90.63356	27.05728	GH metased.	quartzite	280, 38N	-	-	-	North-South	002, 84W	38N	Rf-f	1.6±0.1	59N±9	21	18N	39N	1.1	1.6:1.5:1 to 000°
101B	BU08-80B									East-West	267, 52S	6E	Rf-f	1.5±0.1	7E±5	1			±0.1	
102A	BU08-79A	90.63397	27.05200	GH metased.	quartzite	275, 34N	-	-	7, 288	perpendicular to crenulation	018, 83SE	32N	Rf-f	2.1±0.2	32N±3	0	18N	18N	1.2	2.1:1.7:1 to 020°
102B	BU08-79B									parallel to crenulation	293, 57S	7W	Rf-f	1.7±0.1	10W±5	-3			±0.2	
103A	BU08-78A	90.63500	27.04964	GH metased.	paragneiss	-	280, 17N	16, 346	-	parallel to lineation	348, 83W	16N	Rf-f	3.1±0.6	12N±2	-4	18N	14N	1.6	3.1:1.9:1 to 340°
103B	BU08-78B									perpendicular to lineation	076, 74S	6E	Rf-f	1.9±0.1	14E±3	8			±0.4	
104A	BU08-51A	90.70467	27.13739	Chekha	quartzite	030, 18NW	-	-	11, 246	perpendicular to crenulation	336, 79NE	15N	norm. Fry	1.4	27N	12	18N	6N	1.0	1.4:1.4:1 to 330°
104B	BU08-51B									parallel to crenulation	068, 75S	9W	norm. Fry	1.4	23E	32			-	
105A	BU08-50A	90.69350	27.13625	Chekha	quartzite	080, 35N	-	-	5, 269	perpendicular to crenulation	358, 85W	35N	Rf-f	1.6±0.1	21N±7	-14	18N	4N	1.1	1.6:1.4:1 to 350°
105B	BU08-50B									parallel to crenulation	272, 56S	4W	Rf-f	1.4±0.1	9E±5	11			±0.2, -0.1	
106A	BU08-63A	90.70406	27.12833	GH metased.	schist	-	055, 43NW	37, 003	-	parallel to lineation	348, 71NE	37N	Rf-f	6.3±0.6	33N±2	-4	18N	14N	3.3	6.3:1.9:1 to 350°
106B	BU08-63B									perpendicular to lineation	274, 53S	19W	Rf-f	1.9±0.2	15W±4	4			±0.7, -0.6	
107A	BU08-52A	90.70847	27.12453	GH metased.	schist	-	050, 37NW	33, 350	-	parallel to lineation	340, 75NE	33N	Rf-f	6.9±0.7	26N±1	-7	18N	11N	3.1	6.9:2.2:1 to 340°
107B	BU08-52B									perpendicular to lineation	080, 58S	15W	Rf-f	2.2±0.2	8W±3	7			±0.7, -0.6	
108A	BU08-62A																			

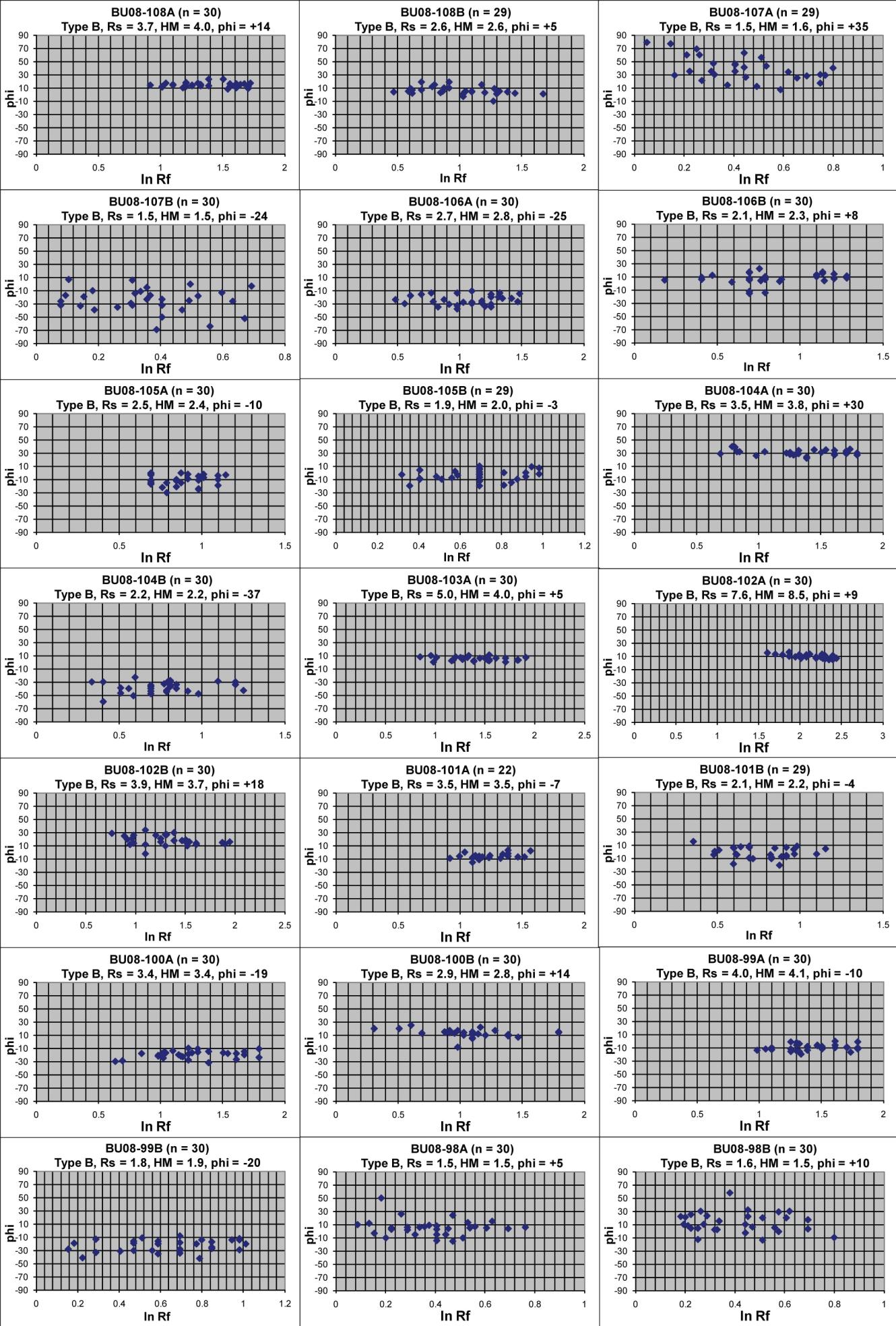


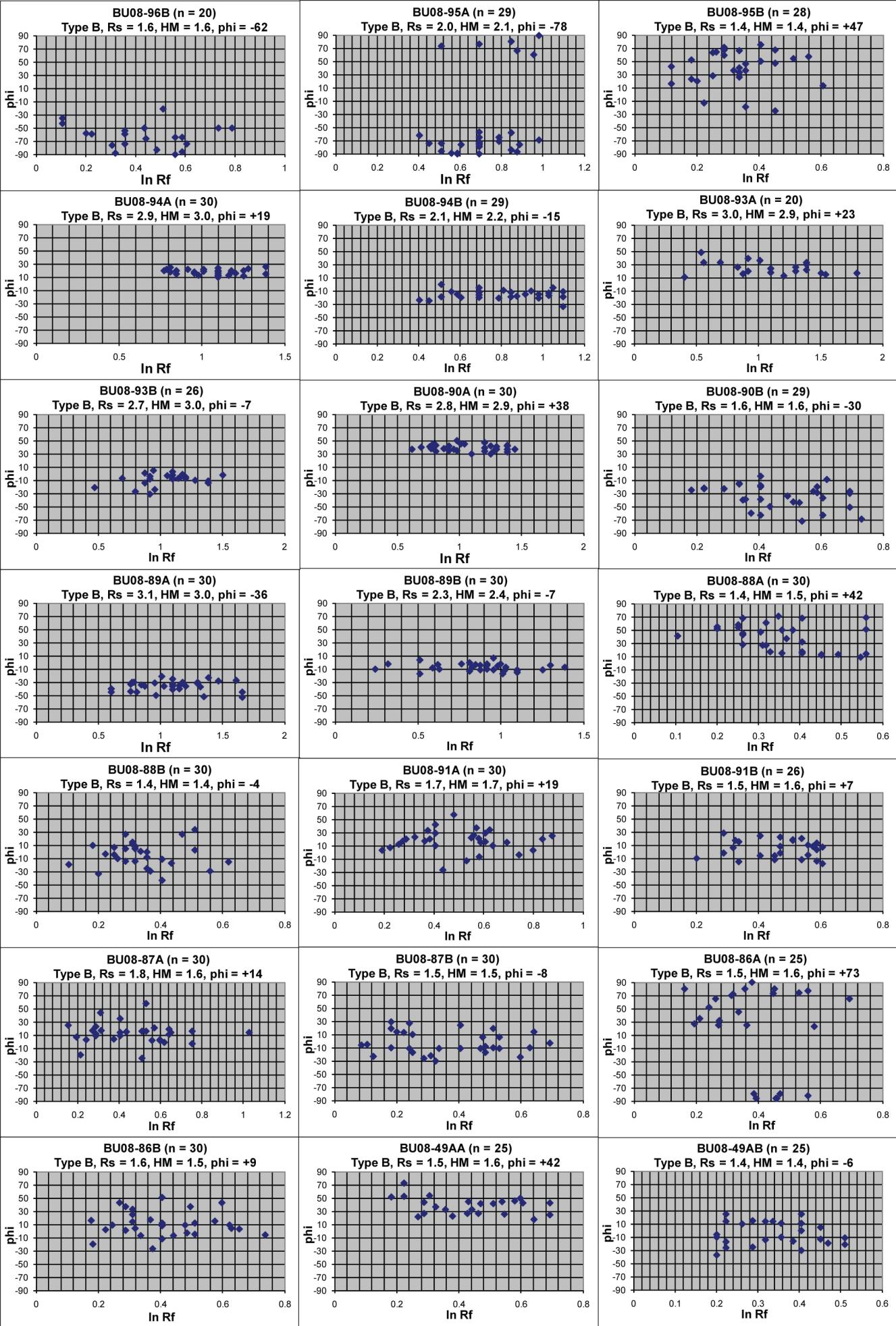


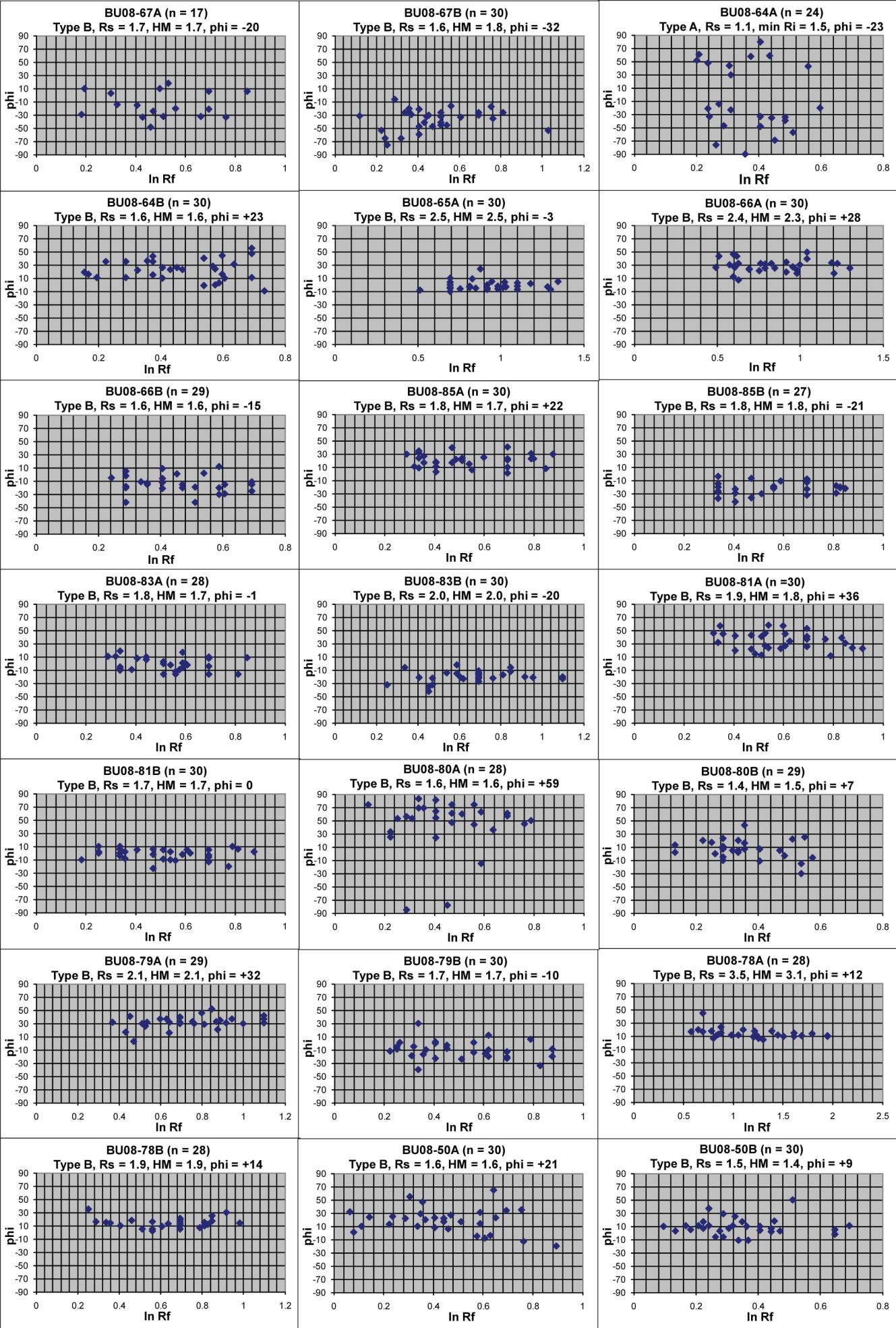


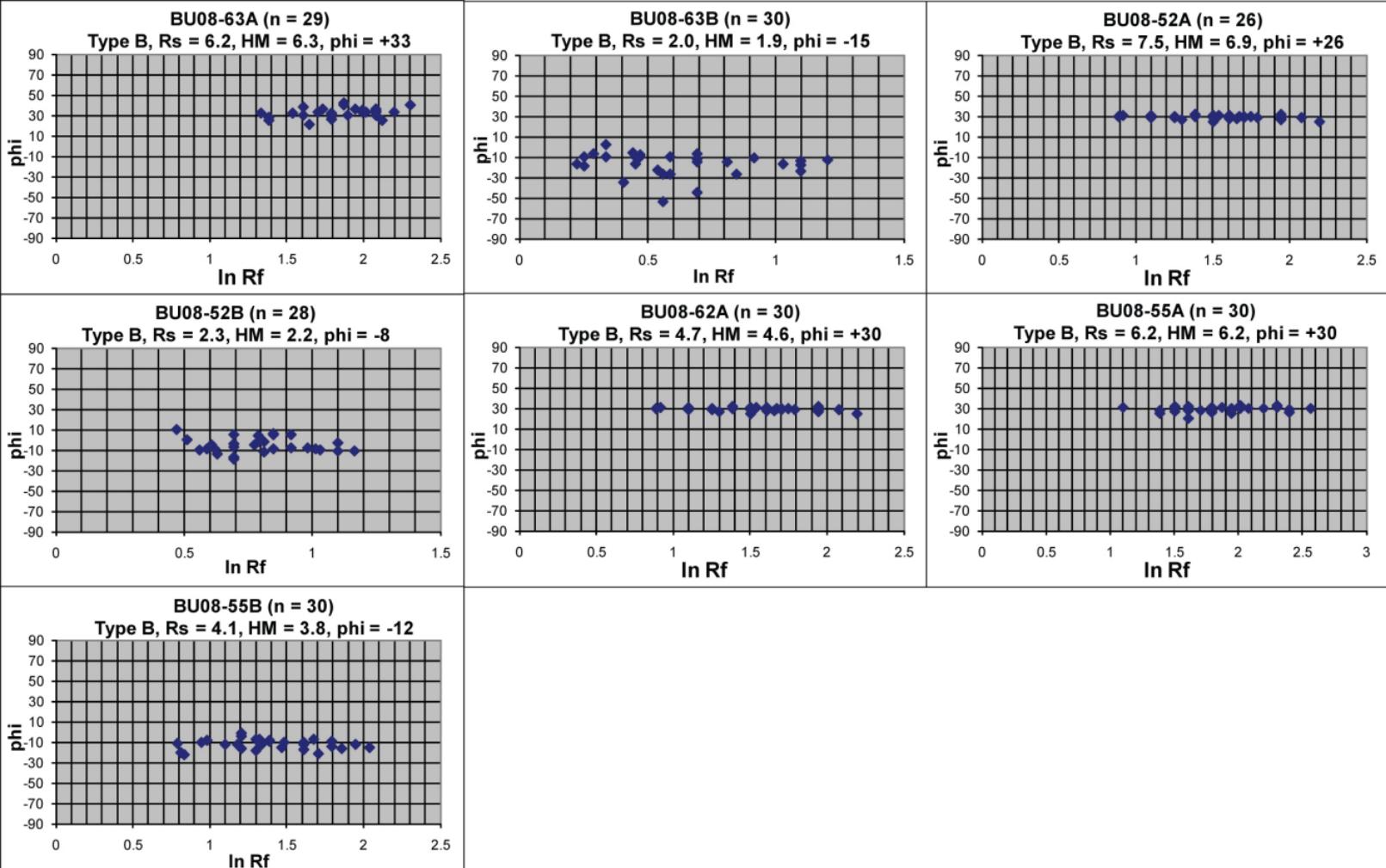




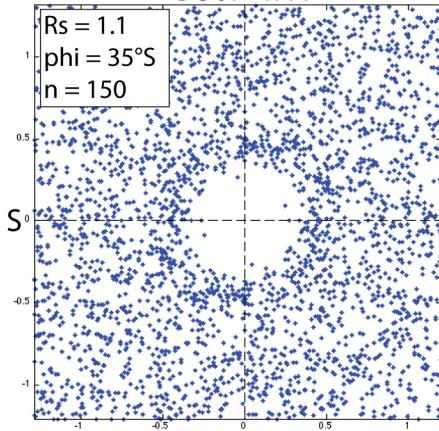




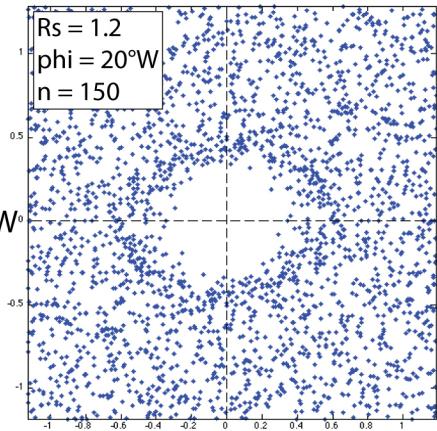




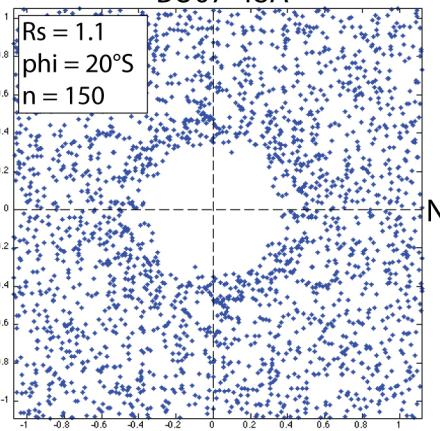
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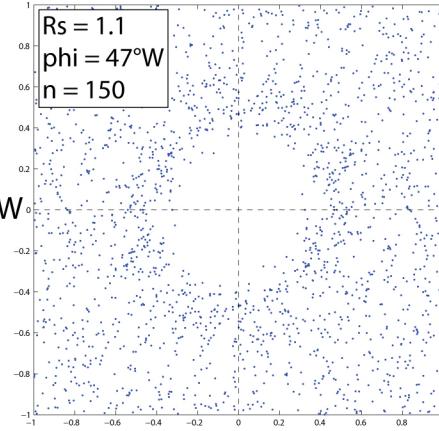
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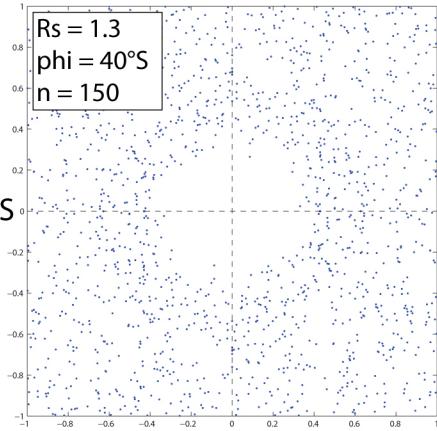
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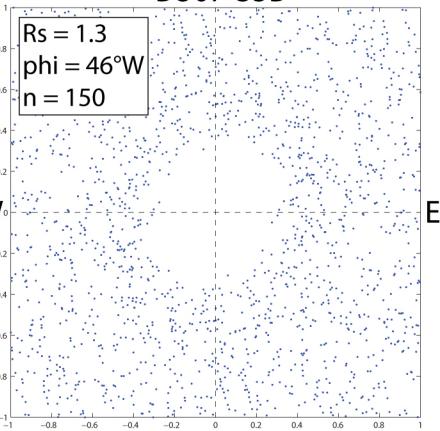
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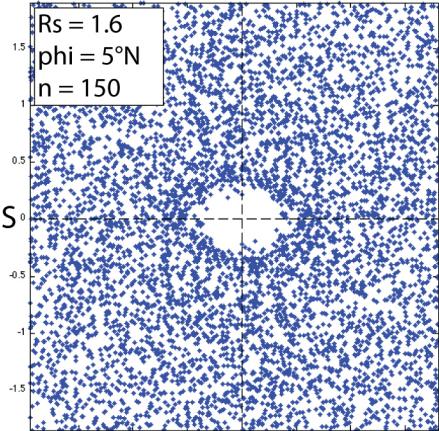
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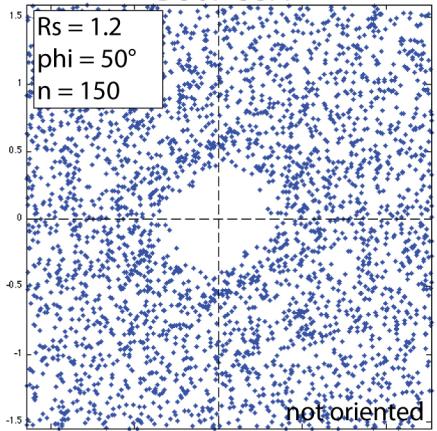
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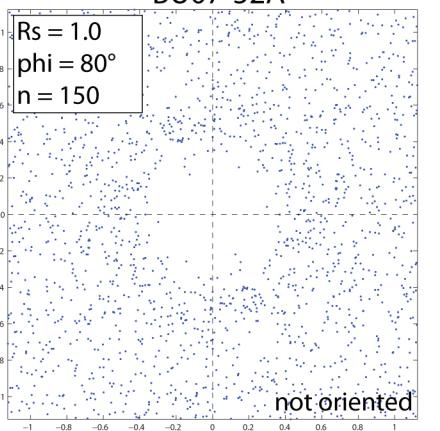
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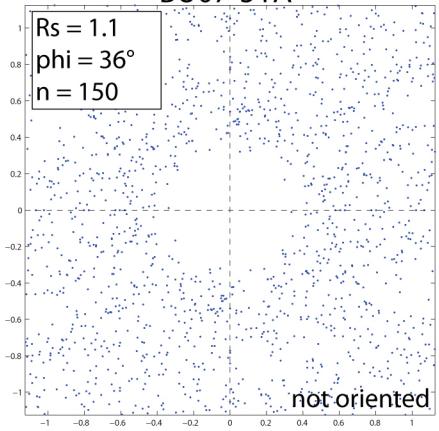
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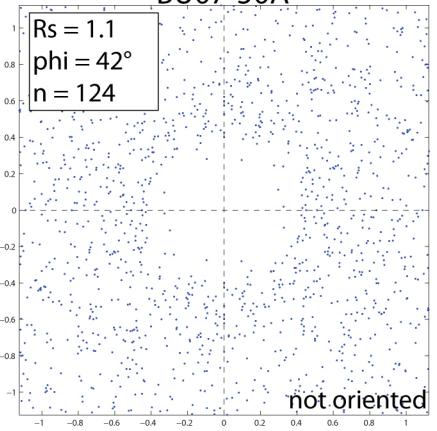
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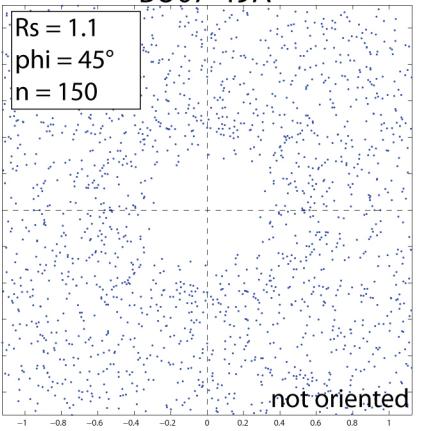
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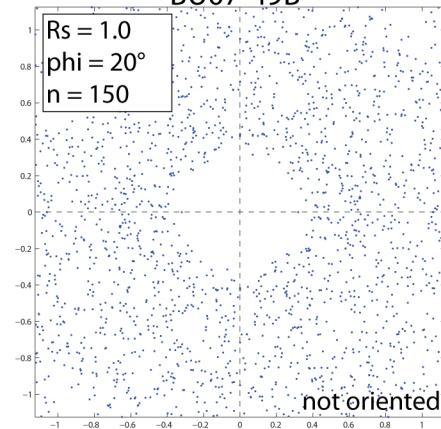
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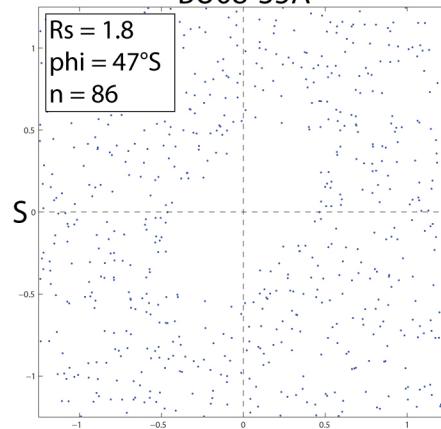
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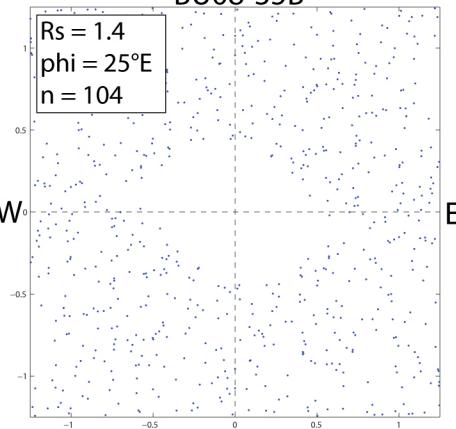
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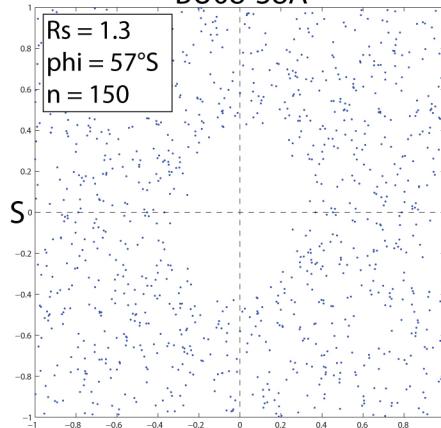
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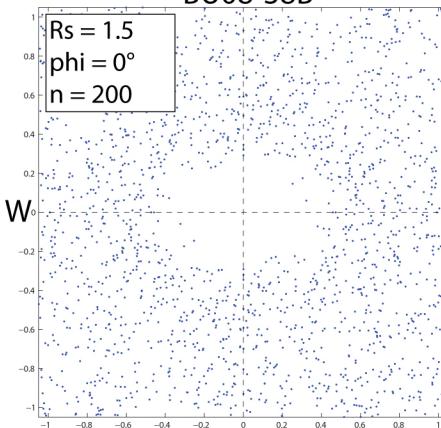
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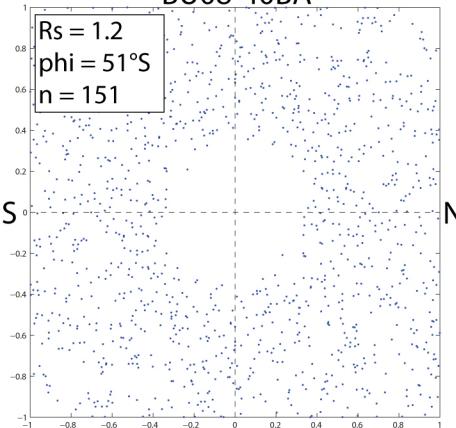
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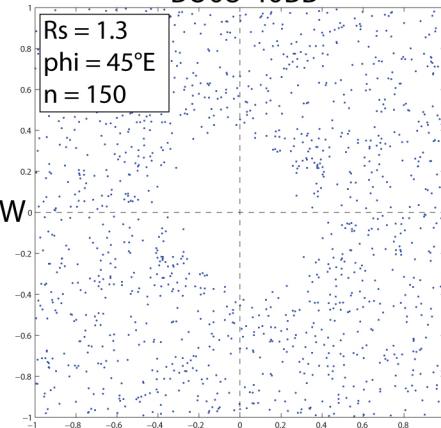
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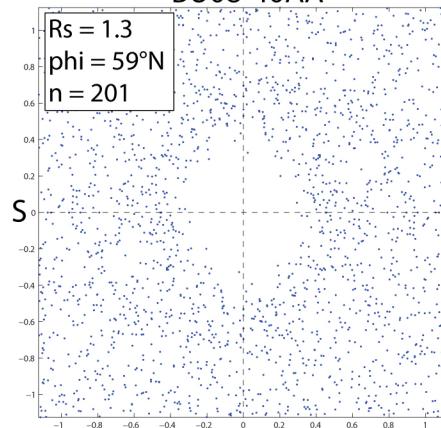
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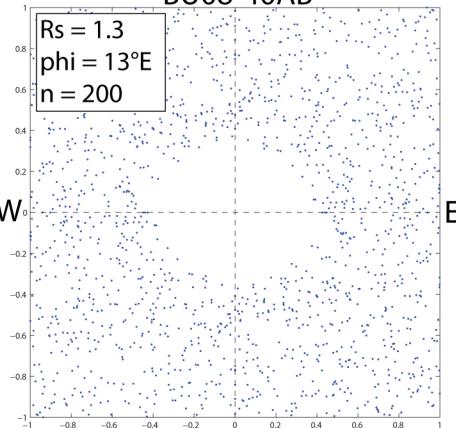
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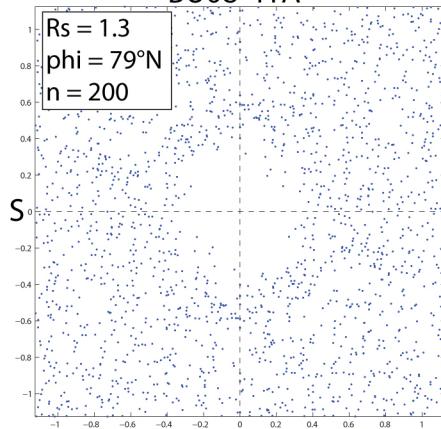
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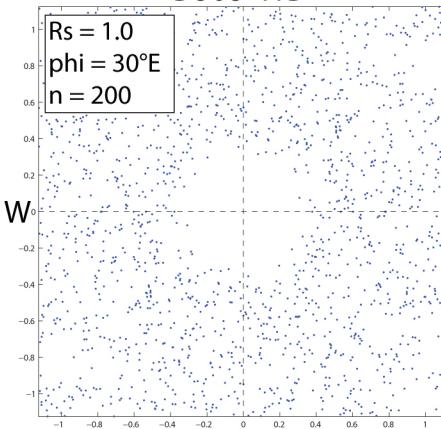
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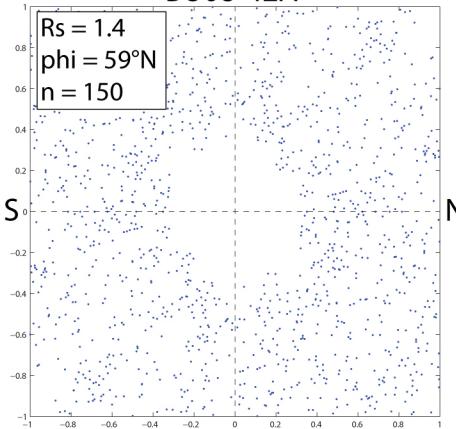
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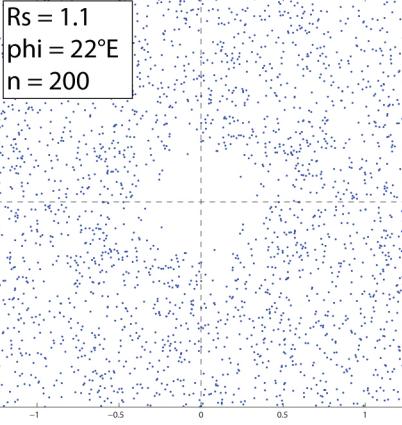
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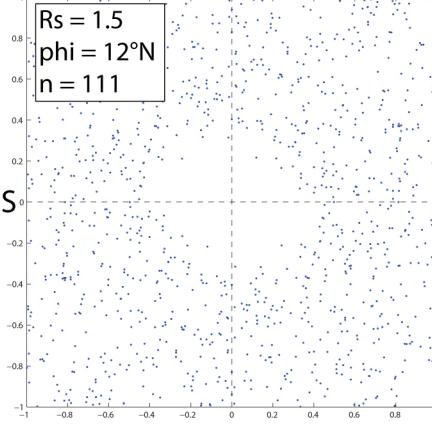
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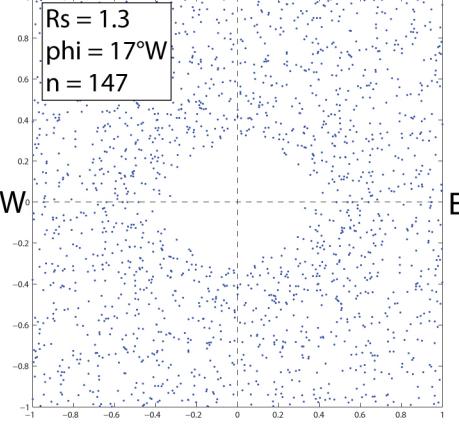
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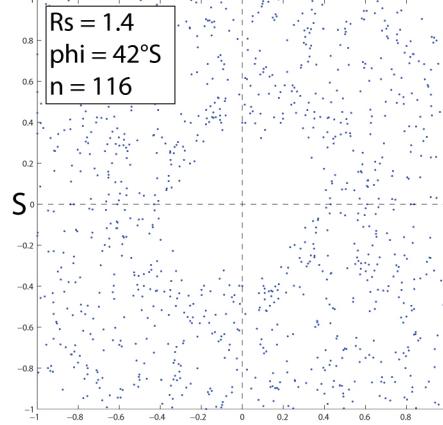
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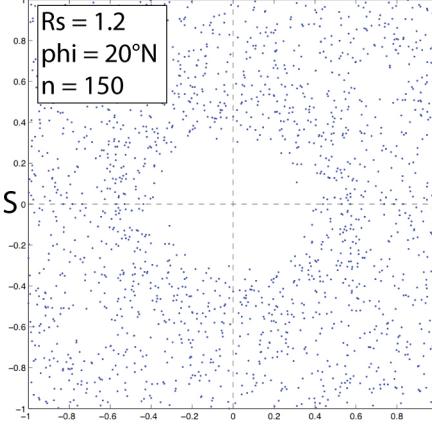
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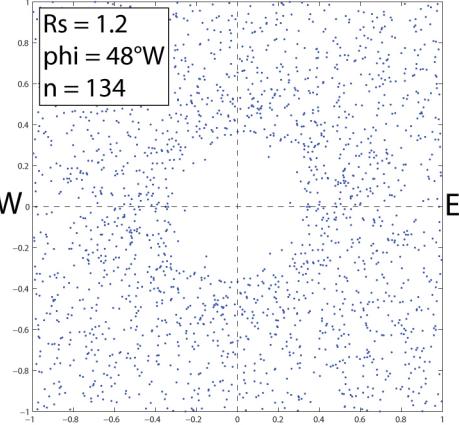
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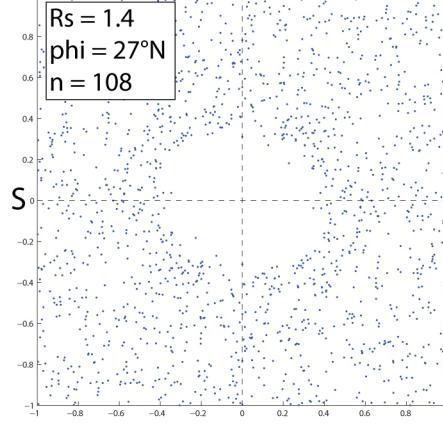
BU08-84A



BU08-84B



BU08-51A



BU08-51B

